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**Title of the centre:**
WHO Collaborating Centre for the Molecular Epidemiology of Parasitic Infections

**Director / Head:**
Andrew Thompson
a.thompson@murdoch.edu.au

**Institution:**
Division of Veterinary and Biomedical Sciences
Murdoch University

**Address:**
South Street, Murdoch, WA 6150 -

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<td>(61-08) 9360 2466 / 2428</td>
<td>(61-08) 9310 4144</td>
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**Date of designation:**
01 Aug 1982

**Last redesignation:**
25 Jun 2007

**Expiry:**
25 Jun 2011

**Terms of reference:**
1. To participate in WHO-coordinated research on the surveillance, epidemiology & control of parasitic infections with particular reference to the identification & characterisation of the aetiological agents of zoonotic diseases.
2. To develop, evaluate & standardize reproducible biochemical & molecular procedures for the differentiation & characterization of parasite variants with particular reference to the impact of heterogeneity within & between parasite populations on epidemiology & control.
3. To collaborate with WHO Member States in the identification & characterization of parasite isolates & to establish & maintain a reference collection of parasite isolates.
4. To collaborate in the training of workers from other countries in various laboratory techniques involved in the molecular characterisation of parasites.

**Subjects:**
1. Parasitic diseases other than those specifically mentioned
2. Zoonoses

**Types of activity:**
1. Research
2. Training and education

**Responsible officer:**
Francois-Xavier MESLIN
(41-22) 791 2575
meslinf@who.int

**You can also contact:**

**Technical counterpart:**
John Ehrenberg
ehrenbergj@wpro.who.int

**Registry file ref:**
Z2/286/8-Z2/181/89
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**Title of the centre:**

WHO Collaborating Centre for the Quality Assurance of Vaccines and Other Biologicals

**Director / Head:**

Dr Vivienne Christ  
Vivienne.Christ@health.gov.au  
Peter Bird  
peter.bird@tga.gov.au

**Institution:**

Immunobiology and Biochemistry Group, Office of Laboratories & Scientific Services (OLSS), Therapeutic Goods Administration (TGA)  
Department of Health & Ageing (DoHA)

**Address:**

P.O. Box 100, - 2606 ACT  
2606  
ACT

**Town:**  
Woden

**Country:**  
AUSTRALIA

**Region:**  
WPRO

**Phone:**  
(61-2) 6232 8400

**Fax:**  
(61-2) 6232 8442

**Web site:**  
http://www.tga.gov.au

**Date of designation:**  
01 Feb 1983

**Last redesignation:**  
07 Jul 2006

**Terms of reference:**

1. To provide consultancy in the field of quality assurance of vaccines & biologicals.
2. To develop or maintain training curricula & materials on quality assurance of vaccines & other biologicals, with reference to the essential functions of national regulatory authorities outlined by WHO.
3. To conduct training for appropriately qualified staff of national regulatory authorities, & where pertinent, quality assurance of vaccine production institutes, from countries & areas in the rest of the world, depending on the needs & priorities developed through consultation between their WHO Regional Office for the Western Pacific (WPRO) & WHO Headquarters.
4. To participate fully in exchange of information & expertise with regional & global networks of national regulatory authorities.
5. To perform appropriate testing of vaccine quality, as required.
6. To contribute in the development & review of written standards for biological products & vaccines including those products based on genetic manipulation.

**Subjects:**

1. Biological

**Types of activity:**

1. Product development (guidelines; manual; methodologies; etc.)
2. Research
3. Standardization of terminology and nomenclature

**Responsible officer:**

SNIADACK David H.  
sniadackd@wpro.who.int

**You can also contact:**

[Email]

**Technical counterpart:**

David John WOOD  
(41-22) 791 4050  
woodd@who.int

**Registry file ref:**

B3/286/13
### WHO Collaborating Centre for Reference and Research on Influenza

**Title of the centre:**
WHO Collaborating Center for Reference and Research on Influenza

**Director / Head:**
Prof. Anne KELSO
Dr Ian Barr

**Institution:**
Influenza Reference Laboratory
Victorian Infectious Diseases Reference Laboratory (VIDRL)

**Address:**
45 Poplar Road, Parkville, Victoria 3052
3051 Victoria

**Town:**
Melbourne

**Country:**
AUSTRALIA

**Region:**
WPRO

**Phone:**
(03) 9389 1166
(03) 9389 1881

**Fax:**

**Web site:**
www.influenzacentre.org

**Date of designation:**
01 Mar 2007

**Last redesignation:**
01 Mar 2007

**Terms of reference:**
1. To obtain & preserve representative strains from outbreaks & sporadic cases of influenza, fully characterize their antigenic properties & distribute them to research & production laboratories
2. To exchange information & new antigenic variants of influenza viruses with the WHO Collaborating Centres for Reference & Research on Influenza in Atlanta, London & Tokyo
3. To advise which strains should be included in influenza vaccines

**Subjects:**
1. Influenza

**Types of activity:**
1. Provision of reference substances and other services
2. Outbreaks and emergencies
3. Providing technical advise to WHO

**Responsible officer:**
Wenqing ZHANG
(41) 22 791 4282
zhangw@who.int

**Technical counterpart:**
KASAI Takeshi
kasait@wpro.who.int

**Registry file ref:**
I2/286/1
## WHO Collaborating Centre for Bioethics

**Title of the centre:**
**WHO Collaborating Center for Bioethics**

**Director / Head:**
- Dr. Michael Selgelid
- Seumas Miller
  
  Michael.Selgelid@anu.edu.au
  Seumas.Miller@anu.edu.au

**Institution:**
Centre for Applied Philosophy and Public Ethics (CAPPE), Faculty of Arts, College of Arts and Social Sciences
Australian National University

**Address:**
CAPPE, LPO Box 8260
2601
ACT

**Phone:**
+61 (0)2 6125 8467

**Fax:**
+61 (0)2 6125 6579

**Web site:**
http://www.cappe.edu.au/

**Date of designation:**
13 Jul 2009

**Last redesignation:**
13 Jul 2009

**Expiry:**
13 Jul 2013

**Terms of reference:**
1. To collaborate in research projects in the field of biomedical and public health ethics.
2. To assist WHO in developing materials for educational (or advocacy) purposes in biomedical and public health ethics.
3. To collaborate with WHO and academic institutions, in particular in the Western Pacific Region, for training activities in bioethics/research ethics for both researchers and ethics review committee members.
4. To participate in WHO consultations and the preparation and review of relevant documents on emerging issues in bioethics.

**Subjects:**
1. Ethics
2. Tuberculosis
3. Research policy & development

**Types of activity:**
1. Training and education
2. Information dissemination
3. Providing technical advise to WHO

**Responsible officer:**
Andreas REIS
  
  Phone: reisa@who.int

**You can also contact:**

**Technical counterpart:**
Reijo Kalevi SALMELA
  
  Phone: salmelar@wpro.who.int

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**Title of the centre:**
WHO Collaborating Centre for the Development of Medical Genetics Services in Latin America

**Director / Head:**
Prof. Prof. Roberto GIUGLIANI  
rgiugliani@hcpa.ufrgs.br

**Institution:**
Medical Genetics Service  
Hospital de Clínicas de Porto Alegre

**Address:**
Rua Ramiro Barcelos 2350  
90035-903  
RS

**Town:**
Porto Alegre  
**Country:** BRAZIL  
**Region:** AMRO

**Phone:**
(55-51) 2101 8011  
**Fax:**
(55-51) 2101 8010  
**Web site:**
www.hcpa.ufrgs.br

**Date of designation:**
06 Aug 2004  
**Last redesignation:**
04 Dec 2008  
**Expiry:**
04 Dec 2012

**Terms of reference:**
1. 1) Improvement of the teratogen information facilities: a) To facilitate the creation of new teratogen information services in Latin American countries where they are not yet available by: training of human resources & provision of appropriate methodology; b) To increase the awareness of health professionals & public on these services by printing & mailing of displays, folders & stickers; creation of an informative webpage; organization of courses to health professionals; & organization of lectures to the public; c) to participate on committees in governmental and non-governmental organizations to include this topic on the health care agenda;

2. 2) Improvement of the metabolic information facilities: a) to improve dissemination of the information on the available services; b) creation of a web-based Latin American directory of professionals, services & tests available in different countries and regions; c) production & dissemination of educational material on metabolic diseases, in Portuguese & Spanish.

3. 3) Improvement of the provision of appropriate genetic counseling a) promotion of courses fabout the subject for health professionals; b) production & dissemination of guidelines for the genetic counseling on genetic disorders prevalent on the area (like sickle cell anemia), late-onset disorders, cancer & common diseases (with focus on genomic medicine).

4. 4) Improvement on coverage & quality of information of birth defects surveillance programs: a) disseminate information about the importance of completing with correct information the “field 34” of the “live born declaration”, to be filled for each baby born in Brazil; b) provide support to maternities for the implementation of birth defects surveillance programs in Brazil and Latin America

5. 5) Improvement of the training on human resources for the provision of medical genetics services in South America a) organisation of short-courses of the Latin American School of Medical Genetics every year; b) provision of MSC and PhD level training in Medical Genetics for students from Latin American countries; c) organization of focus courses to provide training for health professionals in selected topics of Medical Genetics

**Subjects:**
1. Genetics & hereditary diseases

**Types of activity:**
1. Information dissemination
2. Product development (guidelines; manual; methodologies; etc.)
3. Training and education

**Responsible officer:**
Shanthi P.B. MENDIS  
Phone: (41-22) 791 3441  
Email: mendiss@who.int

**You can also contact:**

**Technical counterpart:**
James Hospedales  
Phone: (1-202) 974 3264  
Email: hospedaj@paho.org

**Registry file ref:**
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**Title of the centre:**
WHO Collaborating Centre for Bioethics

**Director / Head:**
Dr Ross UPSHUR  
ross.upshur@sunnybrook.ca

**Institution:**
Joint Centre for Bioethics  
University of Toronto

**Address:**
155 College Street, Suite 754  
M5T 1P8  
Ontario

**Town:**
Toronto

**Country:**
CANADA

**Region:**
AMRO

**Phone:**
(1-416) 978 4756

**Fax:**
(1-416) 978 1911

**Web site:**
http://www.utoronto.ca/jcb

**Date of designation:**
26 Apr 2002

**Last redesignation:**
12 Apr 2010

**Expiry:**
12 Apr 2014

**Terms of reference:**
1. To collaborate in research projects in the field of biomedical and public health ethics.
2. To assist WHO in developing materials for educational (or advocacy) purposes in biomedical and public health ethics.
3. To collaborate with WHO and academic institutions, in particular in the Region of the Americas, for training activities in bioethics/research ethics for both researchers and ethics review committee members.
4. To participate in WHO consultations and the preparation and review of relevant documents on emerging issues in bioethics.

**Subjects:**
1. Ethics
2. Health legislation and human rights
3. Influenza

**Types of activity:**
1. Research
2. Training and education
3. Coordination of activities carried out by several institutions (e.g. other WHO collaborating centres)

**Responsible officer:**
Andreas Alois REIS  
(reisa@who.int)

**You can also contact:**

**Technical counterpart:**
DI FABIO Jose Luis  
difabioj@paho.org

**Registry file ref:**
G3/286/9
### Title of the centre:
WHO Collaborating Centre for Malaria, Schistosomiasis and Filariasis

### Director / Head:
Lin-hua TANG  
ipdtlh@public3.sta.net.cn

### Institution:
Institute of Parasitic Diseases (IPD)  
Chinese Center for Diseases Control and Prevention (China CDC)

### Address:
207 Rui Jin Er Lu  
200025

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<td><a href="http://211.80.10.9/">http://211.80.10.9/</a></td>
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### Date of designation:
01 Mar 1980

### Last redesignation:
10 Nov 2006

### Expiry:
10 Nov 2010

### Terms of reference:
1. To evaluate innovative treatment regimens for the treatment of multi-drug resistant falciparum malaria.
2. To perform operational research on the impact of global warming on malaria transmission & develop effective monitoring mechanisms.
3. To develop strategies for malaria control in areas where Anopheles anthropophagus is the main vector.
4. To develop new immunological techniques for the diagnosis of malaria & schistosomiasis.
5. To assess the impact of ecological variation on schistosomiasis transmission in the middle & lower reaches of the Yangtze River & to develop effective control strategies.
6. To develop & field test a genetically engineered vaccine for Schistosoma Japonicum.
7. To develop & test methods for personal protection against schistosomiasis & cercarial dermatitis.
8. To carry out operational research on the control of lymphatic filariasis.

### Subjects:
1. Malaria
2. Schistosomiasis

### Types of activity:
1. Information dissemination
2. Product development (guidelines; manual; methodologies; etc.)
3. Research

### Responsible officer:
John Ehrenberg  
Phone:  
Email: ehrenbergj@wpro.who.int

### Technical counterpart:
Dirk ENGELS  
Phone: (41-22) 791 3824  
Email: engelsd@who.int

### Registry file ref:
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**Title of the centre:**
WHO Collaborating Centre for the Community Control of Hereditary Diseases

**Director / Head:**
Dr Shangzhi HUANG  
hsz_pumc@yahoo.com.cn

**Institution:**
Institute of Basic Medical Sciences  
Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences

**Address:**
5 Dongdan Santiao  
100005  
Beijing  
CHINA  
WPRO

**Phone:**
(86-10) 6529 6480  
(86-10) 6522 9323

**Date of designation:**
06 Mar 1991

**Last redesignation:**
30 Mar 2009

**Expiry:**
30 Mar 2013

**Terms of reference:**
1. To continue the analysis of the spectrum of mutations of the most common monogenic diseases in China.
2. To develop & standardize DNA techniques for diagnosis of hereditary diseases.
3. To provide training in modern approaches for the prevention of congenital & inherited diseases.
4. To initiate some preventive measures for one or two genetic diseases in China.
5. To act as a resource for the programme on Genetic Counselling at the WHO Regional Office for the Western Pacific.
6. To provide information on genetic & genomics in China to facilitate adequate representation on the Genomic Resource Centre (GRC).

**Subjects:**
1. Genetics & hereditary diseases
2. Health Technology (including laboratory services; but excluding blood safety)
3. Health promotion & education

**Types of activity:**
1. Development and application of appropriate technology
2. Implementation of WHO programmes and activities at country level
3. Training and education

**Responsible officer:**
Shanthi P.B. MENDIS  
(41-22) 791 3441  
mendiss@who.int

**You can also contact:**
Email:

**Technical counterpart:**
SHIN Hai-Rim  
shinh@wpro.who.int

**Registry file ref:**
G3/286/2
Title of the centre:
WHO Collaborating Centre for Psychosocial Substance Abuse and Health

Director / Head:
Hao Wei
bmwhomhi@public.cs.hn.cn
weihao57@china.com

Institution:
Mental Health Institute
Central South University

Address:
#86 Renmin Middle Road
410011
Hunan

Town:
Changsha
Country:
CHINA
Region:
WPRO

Phone:
(86-731) 529 2156
Fax:
(86-731) 536 0160
Web site:
www.xyeyy.21hospital.com

Date of designation:
25 Feb 1994
Last redesignation:
10 Sep 2007
Expiry:
10 Sep 2011

Terms of reference:
1. To carry out research such as brain image study, genetic study, epidemiological survey, and biological study on drug addiction and some major mental disorder.
2. To act as a national training centre in the field of drug and alcohol management and mental disorders.
3. To act as a national centre to promote the teaching of the behaviour science in medical schools and to assist WHO in the development and dissemination of relevant learning materials.
4. To act as a psychiatric information exchange centre in China and to share experiences with other countries.
5. To participate in coordinated research activities on mental health and substance abuse.
6. To participate in WHO coordinated activities on mental health and substance abuse and educational programmes.
7. To involve in the development and implementation of national policies and plan on mental health and substance abuse.

Subjects:
1. Mental health & neurosciences
2. Substance abuse (including alcohol & drugs)

Types of activity:
1. Research
2. Training and education
3. Product development (guidelines; manual; methodologies; etc.)

Responsible officer:
WANG Xiangdong
Phone: 
Email: wangx@wpro.who.int

You can also contact:
Email: 

Technical counterpart:
Vladimir B. POZNYAK
Phone: 
Email: poznyakv@who.int

Registry file ref:
M4/286/21
**WHO Collaborating Centre for Gene Synthesis and Expression**

**Title of the centre:**
WHO Collaborating Centre for Gene Synthesis and Expression

**Director / Head:**
Dr Weiqing Pan  
wqpan0912@yahoo.com.cn

**Institution:**
Department of Etiologic Biology  
Second Military Medical University

**Address:**
800 Xiang Yin Road - 200433  
200433

**Town:**
Shanghai  
**Country:**
CHINA  
**Region:**
WPRO

**Phone:**
(86-21) 8187 1010  
**Fax:**
(86-21) 6533 1272  
**Web site:**
http://whocc.smmu.edu.cn

**Date of designation:**
30 Jun 2005  
**Last redesignation:**
28 Jul 2009  
**Expiry:**
28 Jul 2013

**Terms of reference:**
1. To synthesize and produce candidate vaccines for WHO priority parasitic diseases by the technical platform developed by the Center.
2. To carry out pre-clinical investigations and clinical trials of a combined malaria vaccine containing PfCP-2.9.& CSP of Plasmodium falciparum including process development under WHO criteria.
3. To identify a suitable adjuvant or combined adjuvants for the combined malaria vaccine of Plasmodium falciparum in collaboration with WHO/IVR adjuvant project.
4. To investigate the Schistosome tegument proteins as a schistosomiasis vaccine candidates including Sj29, SjTSP1, SjTSP2 and SjTSP22 proteins and to conduct pre-clinical studies.
5. To establish a national database of malaria parasite populations and their genetic characteristics and identify region-specific genetic markers (haplotypes) of parasite for tracing pathogen that should meet technical requirements for global strategy for eradication of malaria.
6. To provide a network as well as BSL3 facility on WHO priority diseases by participating in activities within the IVR & WHO/TDR network on tropical diseases. Also to provide skills & strengths to individual/groups who work on tropical diseases or who invest in IVR funded projects, particularly concerning research capability strengthening & vaccine R&D in developing countries or disease endemic regions.
7. To invest in training programmes to hold training courses on molecular biology & biotechnology applied to tropical diseases, including Ph.D. & Master courses as well as short courses to train inside or outside researchers in order to strengthen their capabilities to work on infectious diseases.

**Subjects:**
1. Vaccines  
2. Blood Transfusion Safety and Blood Products

**Types of activity:**
1. Research  
2. Development and application of appropriate technology  
3. Evaluation

**Responsible officer:**
Marie-Paule KIENY  
**Phone:**
(41-22) 791 3591  
**Email:**
kienym@who.int

**You can also contact:**

**Technical counterpart:**
John Patrick EHRENBERG  
**Phone:**
**Email:**
ehrenbergj@wpro.who.int

**Registry file ref:**
V20/286/41 VR
Title of the centre:
WHO Collaborating Centre for the Prevention of Deafness and Hearing Impairment

Director / Head:
Prof. & Dr. XINGKUAN BU
bxkuan@gmail.com

Institution:
Jiangsu Ear and Hearing Center
Nanjing Medical University

Address:
300 Guang Zhou Rd.
210029
Jiangsu Province

Town: Nanjing
Country: CHINA
Region: WPRO

Phone: + 86 25 8371 8836
Fax: + 86 25 8372 4440
Web site: www.jsph.net

Date of designation: 23 Apr 2009
Last redesignation: 23 Apr 2009
Expiry: 23 Apr 2013

Terms of reference:
1. In order to supplement the WHO global data base, more epidemiologic study on ear diseases and hearing impairment will be done in Hubei and Hanan provinces. The survey will be cooperated with our close partner - the Epidemiology & Biostatistic Department, Public Health College, Nanjing Medical University.
2. To join GBD 2007 (hearing loss in adults), based on our previous survey and the primary analysis.
3. To implement WWHearing program in China, Chinese Guidelines for Hearing Aids and Services will be proposed and issued through CAHA and Hearing the future activities. More courses will be conducted to certify hearing aids workers and then, better hearing aids services will be performed in China. The guidelines will push hearing aids manufactories in China to produce and provide appropriate and affordable hearing aids on the market. Chinese hearing impaired people will have much benefit from them. The guidelines will play significant role in practice.
4. Newbone hearing screening program will be developed in more places in China. The training courses will be conducted continuously and the computerized data base will be set up in 2008.
5. Research on genetical hearing loss will be developed, focusing on gene screening and genetical consultation. Newborn genetic disease screening cards will be used for collecting the blood spot from the umbilical cord within the moment of newborn. The cards can be directly performed PCR for screening the mitochondrial 12SrRNA 1555G and GJB2 as well as SLC26A4 genes mutations. It may be one of the powerful strategy for adding the concept of newborn gene screening into the hearing screening for the purpose of early diagnosis and discovery the prelingual or late-onset or the high risk as well as the pathogenic carriers. On the basis of the research progress, it is necessary to develop the national newborn gene screening into the process of newborn hearing screening. The pilot study has showed exciting results.

Subjects:
1. Prevention of deafness
2. Disabilities and rehabilitation (excluding accident prevention)

Types of activity:
1. Collection; collation and dissemination of information
2. Product development (guidelines; manual; methodologies; etc.)
3. Implementation of WHO programmes and activities at country level

Responsible officer:
Ivo KOCUR
kocuri@who.int

You can also contact:
Email: shinh@wpro.who.int

Technical counterpart:
SHIN Hai-Rim
Phone: + 86 25 8372 4440
Email: shinh@wpro.who.int
WHO Collaborating Centre for Leshmaniasis

Director / Head:
Dr Nancy Gore SARAVIA
saravian@cideim.org.co

Institution:
Fundacion Centro Internacional de Entrenamiento e Investigaciones Medicas (CIDEIM)

Address:
No. 3-03, Avenida 1A Norte - Cali

Country: COLOMBIA
Region: AMRO

Phone: (57-92) 66 82 164
Fax: (57-92) 66 72 989
Web site: http://www.cideim.org.co

Date of designation: 29 Jun 1993
Last redesignation: 08 Jan 2007
Expiry: 08 Jan 2011

Terms of reference:
1. Strengthen prevention & control of leishmaniasis through training in research methodologies for the evaluation of intervention strategies for leishmaniasis & other vector-borne & infectious tropical diseases in coordination with disease control authorities & institutions of higher education.
2. Design & conduct of multidisciplinary collaborative research projects on American tegumentary & visceral leishmaniasis, & other endemic & emerging infectious diseases in order to (a) identify appropriate intervention strategies targeting the vector-human host, & the human host-parasite interface; (b) to validate or develop innovative diagnostic tools that respond to the performance & cost requirements of the settings in which diagnosis is made, i.e. rural health posts, regional health centers & tertiary care hospitals.
3. Participate in epidemiologic surveillance & the development of networks & activities directed to prevention & improved control of disease through: a) clinical trials of alternative treatment regimens for tegumentary leishmaniasis, malaria, tuberculosis & sexually transmitted diseases. (b) field trials of diagnostic methods & control strategies for transmissible diseases. (c) epidemiologic investigation of leishmaniasis outbreaks of leishmaniasis, malaria, tuberculosis, dengue, hospital infections, leptospirosis, & sexually transmitted diseases, vector assessment, case detection, & follow-up.
4. Evaluate & monitor the clinical response to treatment of leishmaniasis & other transmissible diseases & the emergence of drug & insecticide resistance.
5. Strengthen research skills including Good Laboratory Practice (GLP), Good Clinical Practice (GCP), Clinical Investigation, study design, & Project management through course & workshops.
8. In vitro evaluation of susceptibility of Leishmania circulating in the region to drugs currently used to treat leishmaniasis to guide decisions on first & second line antileishmanials & combined therapies, & in cases of treatment failure to define retreatment.

Subjects:
1. Leishmaniasis
2. Trypanosomiasis

Types of activity:
1. Provision of reference substances and other services
2. Research
3. Training and education

Responsible officer:
Jean Georges JANNIN
Phone: (41-22) 741 3779
Email: janninj@who.int

You can also contact:

Technical counterpart:
Phone: Email:
<table>
<thead>
<tr>
<th>RODRIGUEZ Rodolfo</th>
<th>(55-61) 3426 9595</th>
<th><a href="mailto:rrodrigu@incap.ops-oms.org">rrodrigu@incap.ops-oms.org</a></th>
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Registry file ref: L3/286/6
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<td>Active</td>
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**Title of the centre:**
WHO Collaborating Centre for Community Control of Thalassaemia

**Director / Head:**
Dr Androulla ELEFTHERIOU  
thalassaemia@cytanet.com.cy

**Institution:**
Cyprus Thalassaemia Centre for Community Control of Thalassaemia, Ministry of Health

**Address:**
31 Ifigenias Street  
2007

**Town:**
Nicosia  
Country: CYPRUS  
Region: EURO

**Phone:**
(357-2) 231 9129  
Fax: (357-2) 231 4552  
Web site: www.thalassaemia.org.cy

**Date of designation:**
01 Oct 1986  
**Last redesignation:**
07 May 2008  
**Expiry:**
07 May 2012

**Terms of reference:**
1. To act as a reference centre for training of health professionals on all aspects of prevention and clinical management of Hb disorders.
2. To act as a reference centre for the education of patients and parents.
3. To monitor progress in the implementation of national control programmes.
4. To assist WHO in producing publications and guidelines on the management and prevention of thalassaemia and other haemoglobinopathies.

**Subjects:**
1. Genetics & hereditary diseases  
2. Health promotion & education  
3. Health information; statistics; measurement & trend assessment

**Types of activity:**
1. Training and education  
2. Collection; collation and dissemination of information  
3. Organization of events (e.g. conferences; summits)

**Responsible officer:**
Shanthi P.B. MENDIS  
Phone: (41-22) 791 3441  
Email: mendiss@who.int

**You can also contact:**
Email:

**Technical counterpart:**
Agis Tsouros  
Phone:  
Email: ats@euro.who.int

**Registry file ref:**
G3/286/2
**WHO Collaborating Centres**

**Global database**

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<td>Active</td>
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**Title of the centre:**
WHO Collaborating Centre for Prevention of Deafness and Hearing Impairment

**Director / Head:**
Agnete Parving  
ap03@bbh.hosp.dk

**Institution:**
Department of Audiology  
H.S. Bispebjerg Hospital

**Address:**
Bispebjerg Bakke 23 - DK-24000  
DK-24000

**Town:**
Copenhagen  
**Country:**
DENMARK  
**Region:**
EURO

**Phone:**
(45) 3531 2633  
**Fax:**
(45) 3531 3951

**Web site:**
http://www.bispebjerghospital.dk/bispebjerg.nsf/SkalKategorier/Velkomst

**Date of designation:**
24 Jan 1997  
**Last redesignation:**
04 Jun 2007  
**Expiry:**
04 Jun 2011

**Terms of reference:**

1. To participate actively in the development of activities for the prevention of deafness & hearing impairment, with special emphasis on: (a) the assessment of hearing disorders of public health importance, especially in children; (b) the assessment & research into outcomes & quality of hearing aids & services to provide them, especially in relation to the constraints & needs for developing countries.

2. To conduct applied field research on the epidemiology, aetiology, management & services for avoidable hearing impairment, especially in relation to children.

3. To foster a multidisciplinary approach to the promotion of ear & hearing care & its delivery, especially in relation to developing countries.

4. To participate in the collection, elaboration & distribution of pertinent information.

5. To provide, on request, technical advisory services & expertise in the above-mentioned subjects.

6. To promote and recommend guidelines for professional issues within the WHO Programme for Prevention of Deafness and Hearing Impairment such as through primary prevention of hearing impairment (eg. vaccine preventable causes, genetic causes), and secondary prevention of hearing impairment (screening).

7. To support and strengthen activities for the prevention of deafness and hearing impairment in Eastern European countries based on needs assessment, and including training for capacity building where needed.

**Subjects:**

1. Prevention of deafness

**Types of activity:**

1. Collection; collation and dissemination of information

2. Coordination of activities carried out by several institutions (e.g. other WHO collaborating centres)

3. Evaluation

**Responsible officer:**
Ivo KOCUR  
**Phone:**
  
**Email:**
kocuri@who.int

**You can also contact:**

**Email:**

**Technical counterpart:**
Agis Tsouros  
**Phone:**
  
**Email:**
ATS@euro.who.int

**Registry file ref:**
H16/286/6
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<td>Active</td>
<td>WHO Collaborating Centre for Poliovirus Surveillance and Enterovirus Research</td>
</tr>
</tbody>
</table>

**Director / Head:**
Dr. Merja Roivainen  
merja.roivainen@thl.fi

**Institution:**
Intestinal Viruses Unit, Department of Infectious Disease Surveillance and Control  
National Institute for Health and Welfare (THL)

**Address:**
Mannerheimintie 166 - FIN-00300  
FIN-00300

**Town:**
Helsinki  
**Country:** FINLAND  
**Region:** EURO

**Phone:**
+358 20 610 8406  
**Fax:**
+358 20 610 8355

**Web site:**
www.thl.fi

**Date of designation:**
01 Mar 1993  
**Last redesignation:**
15 Dec 2008  
**Expiry:**
15 Dec 2012

**Terms of reference:**
1. To use molecular & immunological methods to differentiate wild & vaccine virus strains isolated in the designated European Subregion or elsewhere as requested by WHO Headquarters (HQ) or WHO Regional Office for Europe (EURO).
2. To provide molecular epidemiological analysis of wild poliovirus strains & vaccine derived polioviruses (VDPV) by partial genomic sequencing & use of recommended analysis programs. Contribute information on wild poliovirus isolates to WHO database.
3. To provide resources for training staff from National Polio Laboratories. Provide other assistance to National Polio Laboratories & participate in the procedures needed for accreditation of the laboratories.
4. To provide consultative support for methodologies for environmental surveillance of poliovirus.
5. To participate in collaborative studies to assess standards & reference materials.
6. To take an active part in WHO meetings of Reference Laboratories.
7. To conduct research on topics relevant to the Poliovirus Eradication Initiative; to provide appropriate information to HQ & EURO.

**Subjects:**
1. Poliomyelitis  
2. Viral diseases other than those specifically mentioned

**Types of activity:**
1. Research  
2. Training and education

**Responsible officer:**
Eugene Gavrilin  
Email: ega@euro.who.int

**You can also contact:**
Email:

**Technical counterpart:**
Esther Mary DE GOURVILLE  
Phone: (+41) 22 791 2654  
Email: degourvillee@who.int

**Registry file ref:**  
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<td>Active</td>
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**Title of the centre:**
Centre collaborateur de l’OMS de Recherche sur les Entérovirus et les Vaccins viraux

**Director / Head:**
Francis DELPEYROUX
delpeyro@pasteur.fr

**Institution:**
Biologie des Virus Entériques
Institut Pasteur

**Address:**
25-28 rue du Docteur Roux - F-75724, Cedex 15
F-75724, Cedex 15

**Town:**
Paris

**Country:**
FRANCE

**Region:**
EURO

**Phone:**
(33-1) 40 61 33 22

**Fax:**
(33-1) 40 61 33 22

**Web site:**
http://www.pasteur.fr/externe.html

**Date of designation:**
01 Nov 1989

**Last redesignation:**
13 Feb 2008

**Expiry:**
13 Feb 2012

**Terms of reference:**
1. To develop new and improve on existing laboratory methodologies to be used for surveillance of polioviruses and other enteroviruses.
2. To contribute to improving the infrastructure of laboratories that are members of both the Pasteur and WHO global laboratory network through training of personnel, technology transfer and monitoring of performance.
3. To study the evolution and circulation of Sabin related polioviruses and species C enteroviruses with a view to elucidating risk factors for emergence and spread of vaccine derived polioviruses.
4. To provide scientific experts to collaborate with and advise WHO on polio vaccination, virology of enteroviruses, laboratory and surveillance issues

**Subjects:**
1. Poliomyelitis
2. Vaccines

**Types of activity:**
1. Research

**Responsible officer:**
Esther Mary DE GOURVILLE
degourvillee@who.int

**Technical counterpart:**
Eugene Gavrilin
dega@euro.who.int

**Registry file ref:**
P7/286/14
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<th>Title of the centre:</th>
<th>WHO Collaborating Centre for the Community Control of Hereditary Diseases</th>
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<tbody>
<tr>
<td>Director / Head:</td>
<td>Dr Ersi VOSKARIDOU  <a href="mailto:ersi_voskaridou@yahoo.com">ersi_voskaridou@yahoo.com</a></td>
</tr>
<tr>
<td>Institution:</td>
<td>National Centre for Thalassemia and Haemoglobinopathies &quot;Laikon&quot;</td>
</tr>
<tr>
<td>General Hospital</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>16 Sevastoupoleos Str. - GR-115 26</td>
</tr>
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<tr>
<td>Phone:</td>
<td>(30-210) 745 6138</td>
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<tr>
<td>Fax:</td>
<td>(3-210) 775 7442</td>
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<td>19 May 2007</td>
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<tr>
<td>Expiry:</td>
<td>19 May 2011</td>
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**Terms of reference:**

1. To act as a reference centre at national level for the management of haemoglobinopathies control, as well as other genetic diseases (cystic fibrosis, Gaucher disease). Research projects
2. To further develop target health programmes for high risk groups of population, as immigrants & refugees, in collaboration with Governments & NGOs (Ministry of Education, Ministry of Social Affairs, etc.).
3. To further develop training & information programmes on screening principles & diagnostic procedures, for all primary screening units, to increase medical staff's awareness & unit's capacity in the application of valid & effective methodology concerning prevention, genetic counselling & prenatal diagnosis.
4. To promote the monitoring of new strategies for the detection of thalassemic genes among Greek population & the evaluation of the prevention programme effectiveness at a national level.
5. To further develop standard procedures in the application of a national QC system.
6. To assist WHO efforts in developing policies on genital testing, screening & counselling in the international community & especially in neighbouring countries (Balkans, North Africa, Turkey).
7. To undertake a study to provide expanded access of new chelators to patients with congenital disorders of red blood cells & chronic iron overload.
8. To undertake studies of early markers of diagnosis & prognosis of osteoporosis, renal disease & pulmonary hypertension in thalassemic and SCD patients.
9. To undertake studies of early markers of renal failure.

**Subjects:**

1. Noncommunicable diseases other than those specifically mentioned

**Types of activity:**

1. Information dissemination
2. Product development (guidelines; manual; methodologies; etc.)
3. Training and education

**Responsible officer:** Shanthi MENDIS  
Phone: (41-22) 791 3441  
Email: mendiss@who.int

**Technical counterpart:** Agis Tsouros  
Phone: +45 39171509  
Email: ATS@euro.who.int

**Registry file ref:** G3/286/2
### WHO Collaborating Centre for Training in Clinical and Laboratory Genetics in Developing Countries

**Director / Head:**
Dr Madhulika KABRA  mkabra_aiims@yahoo.co.in

**Institution:**
Genetics Unit, Department of Paediatrics
All India Institute of Medical Sciences (AIIMS)

**Address:**
Ansari Nagar  New Delhi - 110029

**Phone:**
(91-11) 2659 4585

**Fax:**
(91-11) 2658 8663

**Web site:**
http://www.aiims.ac.in

**Date of designation:**
24 Nov 1992

**Last redesignation:**
03 Jun 2007

**Expiry:**
03 Jun 2011

**Terms of reference:**
1. To develop training curriculum & material for upgrading skills of medical & allied health professionals.
2. To impart training on clinical & laboratory aspects of genetics disorders.
3. To collect & disseminate epidemiological data on genetic disorders.
4. To develop generic public awareness material for prevention & early detection of genetic disorders.
5. To develop & standardize rapid diagnostic technologies for genetic disorders.

**Subjects:**
1. Genetics & hereditary diseases

**Types of activity:**
1. Information dissemination
2. Product development (guidelines; manual; methodologies; etc.)
3. Research

**Responsible officer:**
Shanthi MENDIS  mendiss@who.int

**Technical counterpart:**
Jerzy Leowski  leowskij@searo.who.int

**Registry file ref:**
G3/286/11
Who Collaborating Centre for Reference and Research in Rabies

Dr. S.N. Madhusudana
mshampur@hotmail.com

Department of Neurovirology
National Institute of Mental Health and Neurosciences (NIMHANS)

P.O. Box No.2900 Hosur Road - 560029 - 560029 KARNATAKA

Bangalore

(91-80) 2699 5129-8

(91-80) 26564830

www.nimhans.kar.nic.in

19 Aug 2004

11 Jul 2008

11 Jul 2012

1. To assist member countries to establish quality rabies diagnostic services and post-exposure treatment.

   Activities include conducting training programmes on modern techniques in rabies diagnosis and post-exposure treatment.

2. To assess the safety and feasibility of current and new regimens for post-exposure rabies treatment and to conduct clinical trials for new vaccines and immunoglobulins.

   Activities include performance of RFFIT on serum samples from clinical trials of newer vaccines and immunoglobulins.

3. To support rabies surveillance including molecular epidemiology of rabies viruses.

   Rabies virus strains isolated will be subjected to genetic sequencing and analysis.

4. To collaborate with WHO and other international organizations on research and training for rabies diagnosis and post-exposure rabies treatment.

   On request, training will be provided to candidates identified by WHO and other international organizations.

Rabies

Evaluation

Development and application of appropriate technology

Training and education

Gongal Gyanendra
gongalg@searo.who.int

Francois-Xavier MESLIN
(41-22) 791 2575
meslinf@who.int

R2/286/11
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<td>IND-91 [SEARO]</td>
<td>Active</td>
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**Title of the centre:**
WHO Collaborating Centre for Diagnosis, Reference, Research and Training in Leptospirosis

**Director / Head:**
P. Vijayachari  
vijayacharip@yahoo.com  
pblicmr@sancharnet.in

**Institution:**
Regional Medical Research Centre  
Indian Council of Medical Research (ICMR)

**Address:**
Post Bag No. 13 Dollygunj - 744 101 - 744 101  
744 101

**Town:**
Port Blair

**Country:**
INDIA

**Region:**
SEARO

**Phone:**
(91-3192) 251 158 / 251 043 / 251 164

**Fax:**
(91-3192) 251 163

**Web site:**
www.rmrc.res.in

**Date of designation:**
01 Jul 2004

**Last redesignation:**
24 Mar 2008

**Expiry:**
24 Mar 2012

**Terms of reference:**
1. To carry out operational research on leptospiral infection among humans, rodents and other animals in different parts of India
2. To develop control strategies for leptospirosis based on modification of physico-chemical parameters of soil and surface water
3. To develop a database of genotypes of serovars strains from humans, animals and environment in different regions of India
4. To develop and standardize rapid tests for sero-epidemiological studies
5. To serve as a referral and training centre on leptospirosis and assist in establishment of reference laboratories for diagnosis of leptospirosis in endemic countries of the South-East Asia Region

**Subjects:**
1. Zoonoses

**Types of activity:**
1. Research
2. Evaluation
3. Development and application of appropriate technology

**Responsible officer:**
Gongal Gyanendra  
gongalg@searo.who.int

**You can also contact:**
Email:  

**Technical counterpart:**
Francois-Xavier MESLIN  
(41-22) 791 2575  
meslinf@who.int

**Registry file ref:**
L6/286/1
## WHO Collaborating Centre for Community Control of Hereditary Diseases

**Director / Head:** Prof Renzo GALANELLO  
renzo.galanello@mcweb.unica.it

**Institution:** Struttura Complessa Microcitemie ed altre Malattie Ematologiche ASL8 Dipartimento di Scienze Biomediche e Biotecnologie  
Università degli Studi di Cagliari

**Address:**  
Via Jenner s/n  
09121  
Sardinia

**Town:** Cagliari  
**Country:** ITALY  
**Region:** EURO

**Phone:** (39-70) 609 5508 / 503 364  
**Fax:** (39-70) 609 5509  
**Web site:** http://mcweb.unica.it

**Date of designation:** 01 May 1985  
**Last redesignation:** 14 May 2010  
**Expiry:** 14 May 2014

**Terms of reference:**
1. To act as a reference centre for training on management in the control of Haemoglobinopathies (i.e. diagnosis, treatment & prevention aspects).
2. To further develop DNA methods for early diagnosis of hereditary (haemoglobin disorders) & other common genetic diseases in community.
3. To assist WHO in developing a proper policy on genetic testing & screening in communities.
4. To investigate possibilities for early genetic diagnosis of multifactorial disease (Type 1 diabetes, multiple sclerosis & celiac disease).
5. To support & contribute to the Genomic Resource Centre/HQ, especially with regards to genetic diseases, health services & technologies & act as a resource on genetic issues raised at the WHO Regional Office for Europe in Copenhagen.

**Subjects:**
1. Genetics & hereditary diseases

**Types of activity:**
1. Research
3. Product development (guidelines; manual; methodologies; etc.)

**Responsible officer:** Shanthi P.B. MENDIS  
Phone: (41-22) 791 3441  
Email: mendiss@who.int

**You can also contact:**  
Email:  

**Technical counterpart:** Agis TSOUROS  
Phone: +45 39171509  
Email: ats@euro.who.int

**Registry file ref:** G3/286/5
**Title of the centre:**
WHO Collaborating Centre for Reference and Research on Poliomyelitis

**Director / Head:**
DR Lucia FIORE

**Institution:**
Enterovirus Group, Department of MIPI
Istituto Superiore di Sanità

**Address:**
Viale Regina Elena 299 - I-00161
I-00161

**Town:**
Rome

**Country:**
ITALY

**Region:**
EURO

**Phone:**
(39-6) 4990 3256

**Fax:**
(39-6) 4990 2082

**Web site:**
http://www.iss.it/mipi/

**Date of designation:**
06 Nov 1991

**Last redesignation:**
27 May 2009

**Expiry:**
27 May 2013

**Terms of reference:**
1. Support for virological investigations to 5 countries with National Polio Laboratories and 4 countries without National Laboratories in western east Europe.
2. Assisting linked countries to isolate, identify & characterize polioviruses & other enteroviruses from clinical samples of AFP patients. Countries with national polio lab provide viral isolates for identification & characterization.
3. Typing & characterization of polioviruses & other enteroviruses isolated from healthy subjects & environmental samples will also be performed, upon request.
4. Genetic analysis of polio & other enterovirus isolates.
5. Monitoring of patients with primary or secondary immunodeficiency, to detect long term poliovirus excretors among Italian immunodeficient patients.
6. Distribution of reference material (new cell lines, sera, etc.)
7. Training activities.
8. Organization & evaluation of proficiency tests (sub-national laboratories, & linked countries).
10. The centre will have links with the technical programme in WHO Headquarters & WHO Regional Office for Europe on polio eradication.
11. To perform AFP surveillance & environmental surveillance in Italy & all the virological investigations.

**Subjects:**
1. Poliomyelitis

**Types of activity:**
1. Provision of reference substances and other services
2. Research
3. Training and education

**Responsible officer:**
Esther Mary DE GOURVILLE

**Email:**
degourville@who.int

**You can also contact:**

**Technical counterpart:**
Eugene Gavrilin

**Phone:**
(41-22) 791 2654

**Email:**
ega@euro.who.int

**Registry file ref:**
P7/286/17
### WHO Collaborating Centre for the Diagnosis and Treatment of Thyroid Cancer and Other Thyroid Diseases

**Director / Head:**
Prof. Aldo Pinchera  
[a.pinchera@endoc.med.unipi.it](mailto:a.pinchera@endoc.med.unipi.it)

**Institution:**
Department of Endocrinology and Metabolism, Section of Endocrinology  
University of Pisa

**Address:**
Vial Paradisa, 2  I-56124 -

**Town:**
Pisa  
**Country:**
ITALY  
**Region:**
EURO

**Phone:**
(39-050) 544 723  
**Fax:**
(39-050) 578 772

**Date of designation:**
10 Mar 1995  
**Last redesignation:**
07 Dec 2006  
**Expiry:**
07 Dec 2010

**Terms of reference:**
1. To identify environmental chemicals & physical agents (Endocrine disruptors: ED) causing interference with endocrine function.
2. To identify environmental chemicals & physical agents causing endocrine disorders & with particular attention to thyroid cancer & autoimmune & gonadal diseases.
3. To measure environmental chemical contamination by Mass Spectometry in tissues & fluids of patients exposed to pollutants.
4. To measure the consequences related to defect or excess of micronutrients in the population (iodine, selenium) on endocrine function & in particular on thyroid function (Iodine deficiency disorders).
5. To study the genetic factors influencing susceptibility of the population to environmental chemicals, excess or defect of micronutrients, exposure to radiation & electromagnetic fields.
6. To provide advice & training on possible toxic effects on endocrine function of chemical substances, exposure to radiation or electromagnetic fields.
7. To provide advice & training on the diagnosis & management of thyroid disorders induced by ED such as cancer & autoimmune diseases.
8. To advise WHO on issues relating to the diagnosis, treatment & management of thyroid disorders induced by ED.
9. To engage in collaborative research projects on issues relating to the effects of ED on thyroid & gonadal function.
10. To make available expertise & facilities to other units involved in the research field on endocrine & thyroid disrupters.

**Subjects:**
1. Cancer
2. Noncommunicable diseases other than those specifically mentioned

**Types of activity:**
1. Research
2. Training and education
3. Providing technical advise to WHO

**Responsible officer:**
Marco MARTUZZI
[marco.martuzzi@endoc.med.unipi.it](mailto:marco.martuzzi@endoc.med.unipi.it)

**Technical counterpart:**
Zhanat CARR
[carzz@who.int](mailto:carzz@who.int)

**Registry file ref:**
E16/286/18D
Title of the centre: WHO Collaborating Centre on the control of birth defects

Director / Head:
Pierpaolo Mastroiacovo icbd@icbd.org

Institution:
International Centre on Birth Defects

Address:
Via Carlo Mirabello, 19
00195 Roma ITALY

Phone: 0039 06 370 1905
Fax: 0039 06 370 1904
Web site: www.icbdsr.org / www.icbd.org

Date of designation: 10 May 2010
Last redesignation: 10 May 2010
Expiry: 10 May 2014

Terms of reference:
1. Coordinating of research and surveillance activities in the framework of the International Clearinghouse for Birth Defects Surveillance and Research (ICBDSR)
2. Coordination of the International Database on Craniofacial Anomalies (IDCFA), collection of case by case data to feed the International Perinatal Database on Typical Oral Clefts (IPDTC) from 54 registries worldwide in collaboration with the WHO Genomic Resource Centre.
3. Coordination of the "Promoting International Awareness of Birth Defects Prevention"
5. Preconceptional Counseling

Subjects:
1. Genetics & hereditary diseases
2. Environmental health and hazards other than those specifically mentioned
3. Health information; statistics; measurement & trend assessment

Types of activity:
1. Collection; collation and dissemination of information
2. Coordination of activities carried out by several institutions (e.g. other WHO collaborating centres)
3. Providing technical advise to WHO

Responsible officer:
Shanthi P.B. MENDIS mendiss@who.int

You can also contact:

Technical counterpart:
Agis TSOUROS ats@euro.who.int

Registry file ref:
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</table>

**Title of the centre:**
WHO Collaborating Centre for Research and Training in Mental Health

**Director / Head:**
Dr Toru NISHIKAWA, tnis.psyc@tmd.ac.jp

**Institution:**
Department of Neuropsychiatry, Graduate School
Tokyo Medical & Dental University

**Address:**
1-5-45, Yushima, Bunkyo-ku
113-8519

**Town:**
Tokyo

**Country:**
JAPAN

**Region:**
WPRO

**Phone:**
(81-3) 5803 5237

**Fax:**
(81-3) 5803 0135

**Web site:**

**Date of designation:**
11 Sep 1991

**Last redesignation:**
19 Jan 2009

**Expiry:**
19 Jan 2013

**Terms of reference:**
1. To promote research & training in biological psychiatry, psychopharmacology, psychiatric epidemiology & psychosocial & transcultural aspects of mental health problems.
   - (1) Development and Examination of the Validity of Diagnostic Marker Candidate Genes for Schizophrenia
   - (2) Development and Examination of the Validity of a Diagnostic Tool for Core Schizophrenia
   - (3) Development and Examination of the Validity of a Novel Pharmacotherapy for Schizophrenia
   - (4) Development and Examination of the Validity of a Novel Pharmacotherapy for Treatment-Refractory Depression

2. To participate in international studies in the field of mental health.
   - Development and Evaluation of the ICD-11:
     - a) Participation in the discussion and clinical trials
     - b) Publication of Japanese edition

3. To transfer technologies for treatment of mental disorders to developing countries/areas.
   - (1) Preparation of training programs for transferring clinical and research techniques in the field of psychiatry to developing countries
   - (2) Acceptance of students, researchers and clinical staffs from developing countries to transfer to them the technologies for diagnosis and treatment of mental disorders

**Subjects:**
1. Mental health & neurosciences

**Types of activity:**
1. Research
2. Training and education
3. Information dissemination

**Responsible officer:**
Xiangdong Wang, Phone: wangx@wpro.who.int

**You can also contact:**

**Technical counterpart:**
Shekhar SAXENA, Phone: (41-22) 791 3625, Email: saxonas@who.int
Registry file ref:
M4/286/4 (7)
Title of the centre:
WHO Collaborating Centre for Reference and Research on Influenza

Director / Head:
Tashiro Masato mtashiro@nih.go.jp
Takato Odagiri todagiri@nih.go.jp

Institution:
Influenza Laboratory, Department of Viral Diseases and Vaccine Control
National Institute of Infectious Diseases

Address:
4-7-1 Gakuen, Musashi-Murayama-shi
208-0011

Town: Tokyo Country: JAPAN Region: WPRO

Phone: (81-42) 565 2498 Fax: (81-42) 565 2498

Website: http://www.nih.go.jp/niid/index.html

Date of designation: 25 May 1993 Last redesignation: 01 Jun 2009 Expiry: 01 Jun 2013

Terms of reference:
1. a. Provide recommendations to WHO on the global surveillance of influenza viruses causing human infections or with the potential for human infection;
   • timely advice to the WHO Global Influenza Surveillance Network (GISN) on evaluation and standardization of laboratory methods for the diagnosis of influenza, on the adoption of new diagnostic standards, on the improvement of laboratory quality practices meeting internationally recognized requirement and on other laboratory operational needs;
   • regularly and timely quality influenza surveillance data to WHO, particularly from the own and neighbouring geographical region;
   • reports in timely manner on results of virus characterization to GISN members or other laboratories that contribute specimens/isolates; and
   • expertise to influenza outbreak response investigations, especially those with potential for an human influenza pandemic, and for WHO policy development.

2. b. Conduct:
   • collection of influenza specimens and/or isolates from sources worldwide, making the virus strains freely available to WHO, particularly for the selection and preparation of candidate influenza vaccine viruses;
   • establishment and maintenance of active communications and collaborations with other countries, especially with the WHO recognized National Influenza Centres to ensure that quality clinical specimens and/or isolates are received;
   • isolation and analysis of isolates in both embryonated eggs and cell culture;
   • complete genetic and antigenic analysis of all relevant influenza virus isolates causing human infections or with the potential for human infection, making the information available to WHO in a timely manner;
   • antiviral susceptibility testing and analysis of circulating influenza strains and report to WHO at least bi-annually on the findings;
   • influenza laboratory training for GISN members and other national influenza laboratories; facilitate the participation of additional countries to the WHO GISN; and
3. c. Develop, produce & distribute:
   • specific antisera against representative influenza virus isolates causing human infections or with the potential for human infection to WHO laboratories involved in influenza vaccine strain selection, development and other WHO activities; and
   • standardized laboratory diagnostic reagents for circulating influenza strains to GISN members.

4. d. Participate in:
   • the bi-annual WHO influenza vaccine composition consultations and provide recommendations on suitable wild type influenza strains for vaccine development and production; and
   • the WHO process to select, develop and distribute influenza vaccine viruses for human influenza pandemic preparedness and response.

Subjects:
1. Influenza
2. Respiratory Infections

Types of activity:
1. Provision of reference substances and other services
### WHO Collaborating Centres

#### Global database

| 2. | Providing technical advise to WHO |
| 3. | Outbreaks and emergencies |

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<td>Wenqing ZHANG</td>
<td>(41-22) 791 4282</td>
<td><a href="mailto:zhangw@who.int">zhangw@who.int</a></td>
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<td></td>
<td><a href="mailto:kasait@wpro.who.int">kasait@wpro.who.int</a></td>
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**Registry file ref:** I2/286/9
### WHO Collaborating Centre for Acquired Immuno Deficiency Syndrome

**Title of the centre:**
WHO Collaborating Centre for Acquired Immuno Deficiency Syndrome

**Director / Head:**
Prof. Widad Al- Nakib
drnakib@hotmail.com

**Institution:**
Virology Unit, Department of Microbiology, Faculty of Medicine
University of Kuwait

**Address:**
Faculty of Medicine, University of Kuwait
13110
Safat

**Town:**
Kuwait

**Country:**
KUWAIT

**Region:**
EMRO

**Phone:**
(965) 4986560, 9867037

**Fax:**
(965) 5332719

**Date of designation:**
01 May 1987

**Last redesignation:**
01 Mar 2010

**Expiry:**
01 Mar 2014

### Terms of reference:
1. Hold annual symposia on ‘Recent Advances in Clinical Virology’ in collaboration with EMRO every year from 2009-2012. All the symposia will cover aspects of Recent Advances in the study of HIV/AIDS.
4. Reference work for HIV drug resistance, sequencing, confirmation and genotyping.

### Subjects:
1. HIV/AIDS

### Types of activity:
1. Collection; collation and dissemination of information
2. Research
3. Providing technical advise to WHO

**Responsible officer:**
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ziadyh@emro.who.int

**Technical counterpart:**
Ousmane DIOUF
dioufo@who.int

**Registry file ref:**
A21/286/4
Title of the centre:
WHO Collaborating Centre for Reference and Research on Measles Infections

Director / Head:
Professor Claude P. Muller
claude.muller@lns.etat.lu

Institution:
Division d'Immunologie
Laboratoire National de Santé (LNS)

Address:
P.O. Box 1102
L-1011
Luxembourg

Phone:
+352 49 06 04 220
Fax:
+352 49 06 86
Web site:
http://www.immunology.public.lu/

Date of designation: 03 Feb 1998
Last redesignation: 13 Mar 2009
Expiry: 13 Mar 2013

Terms of reference:
1. Identification of genetic markers for measles virus attenuation: The objective of this study is to determine phenotypic differences between wild-type and vaccine strains in vitro and to identify the genetic basis of the latter.
2. Characterisation of vaccine induced immunity: The objective of this activity is to investigate the robustness of vaccine induced immunity as well as the impact of an increasing number of vaccinees with a less durable immunity on the epidemiology of measles.
3. Antigenic and phenotypic characterization of measles virus isolates: This activity targets the genetic and antigenic characterization of the measles virus H-gene of new measles virus variants. Another objective of this activity is to study field isolates with respect to their phenotypic differences.
4. Development of vaccination strategies to close the window of susceptibility in infants before they can be vaccinated with the live-attenuated vaccine at 9 months. The corresponding strategy is based on novel synthetic and recombinant antigens.
5. Intensified measles surveillance: The objective of this activity is to improve and intensify measles surveillance in Luxembourg, within Europe and beyond, to further develop and optimize protocols for the diagnosis of measles and of measles immunity in different health care settings, in particular of resource poor countries.
6. Genetic characterization of measles virus isolates: This activity targets the genetic characterization of a maximum of MV strains especially in collaboration with countries which are close to eliminate measles. MV sequences will be submitted to phylogenetic analysis and compared to strains circulating in other regions and/or at earlier times. Another objective is to further optimize our non-sequencing genotyping method, to facilitate measles virus genotyping in absence of sequencing facilities.
7. Training and technical support for laboratory personnel from developing countries. The objective of this activity is to train eligible personnel from developing countries in particular from other laboratories of the WHO laboratory network in measles laboratory diagnosis and surveillance.

Subjects:
1. Immunology

Types of activity:
1. Provision of reference substances and other services
2. Research

Responsible officer:
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You can also contact:

Technical counterpart:
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(41-22) 791 3591
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**Title of the centre:**
WHO Collaborating Centre for Tuberculosis

**Director / Head:**
Prof Kazimierz ROSZKOWSKI  
k.roszkowski@igichp.edu.pl

**Institution:**
National Tuberculosis & Lung Diseases Research Institute

**Address:**
Plocka 26 - PL-01-138  
PL-01-138

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**Date of designation:**
30 Apr 1993

**Last redesignation:**
29 Aug 2006

**Expiry:**
29 Aug 2010

**Terms of reference:**
1. To organize training in Tuberculosis Control Programme Management (continuation). The objective of the courses is to develop the managerial skills in staff working at the central & intermediate levels of tuberculosis control programmes in Central & Eastern Europe & in countries of the former Soviet Union. Courses are organized by WHO & KNCV.

2. To organize training for TB control managers from Central European countries with an intermediate burden of tuberculosis that recently joined the European Union (Czech Republic, Hungary, Poland, Slovakia, Slovenia). The objective of the courses is to develop in the countries a modern, public health oriented tuberculosis control with additional interventions (risk group management, outbreak management & infection control in institutional settings).

3. To organize training for tuberculosis laboratory managers should be considered as additional part of activity in the case of financial availability. The capacity of laboratory performance exists.

4. To provide consultant services to countries of Eastern Europe & to countries of former Soviet Union upon request of countries sent to WHO (quality control of TB laboratory services, TB laboratory management & techniques including second-time drugs susceptibility testing & genetic techniques, implementation of DOTS & DOTS-Plus, treatment of MDR TB).

**Subjects:**
1. Tuberculosis

**Types of activity:**
1. Training and education
2. Outbreaks and emergencies
3. Information dissemination

**Responsible officer:**
Risards Zaleskis  
(45-39) 17 1335  
rza@euro.who.int

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**Technical counterpart:**
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(41-22) 791 4266  
blancl@who.int

**Registry file ref:**
T9/286/24
Ref.No. [Initiator] | Status
---|---
RUS-91 [Headquarters] | Active

**Title of the centre:**
WHO Collaborating Centre for the Prevention of Hereditary Diseases

**Director / Head:**
Evgeny Ginter
ekginter@mail.ru
konstantinova@med-gen.ru

**Institution:**
National Research Centre for Medical Genetics, Russian Academy of Medical Sciences

**Address:**
Moskvorechie St. 1 - 115478
115478

**Town:**
Moscow

**Country:**
RUSSIAN FEDERATION

**Region:**
EURO

**Phone:**
(7-499) 86 07

**Fax:**
(7-495) 324 07 02

**Web site:**
www.med-gen.ru

**Date of designation:**
01 Oct 1987

**Last redesignation:**
27 Aug 2007

**Expiry:**
27 Aug 2011

**Terms of reference:**
1. To investigate the proper management for patients with cystic fibrosis and their families in Russia;
2. To develop non-invasive methods of prenatal diagnosis;
3. To develop and perfect DNA-diagnostics for inherited diseases;
4. To develop new methods of inherited metabolic diseases diagnostics;
5. To support and contribute to the Genomic Resource Centre (CRC), WHO Headquarters, especially with regard to genetic disease, health services and technologies and act as a resource on genetic issues raised at the WHO Regional Office for Europe.

**Subjects:**
1. Noncommunicable diseases other than those specifically mentioned

**Types of activity:**
1. Development and application of appropriate technology
2. Providing technical advise to WHO

**Responsible officer:**
Shanthi MENDIS
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**You can also contact:**

**Technical counterpart:**
Agis Tsouros
+45 39171509
ATS@euro.who.int

**Registry file ref:**
G3/286/2
**WHO Collaborating Centre for Occupational Health**

**Ref.No. [Initiator]**
RUS-105 [Headquarters]

**Status**
Active

**Title of the centre:**
WHO Collaborating Centre for Occupational Health

**Director / Head:**
Akhat Bakirov
bakirov@anrb.ru

**Institution:**
Ufa Research Institute of Occupational Health and Human Ecology

**Address:**
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**Town:**
Ufa

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RUSSIAN FEDERATION

**Region:**
EURO

**Phone:**
(7-3472) 55 56 84

**Fax:**
(7-3472) 55 56 84

**Web site:**
http://www.ufniimt.ru

**Date of designation:**
25 Jun 1997

**Last redesignation:**
20 Jul 2007

**Expiry:**
20 Jul 2011

**Terms of reference:**

1. To develop a new scientific trend in molecular genetics through the study of predisposition of workers exposed to work-related chemicals, to occupational diseases, based on the investigation of polymorphism xenobiotic biotransformation genes.

2. To carry out physiologic-hygienic investigations in the basic sectors of oil-gas extraction industries for developing a prognosis model of individual harmless lengths of work, depending on working conditions.

3. To work with health care workers to obtain better knowledge of the causes of occupational diseases, to reduce occupational and work-related morbidity.

4. To study working conditions of health care workers influencing work ability.

5. To identify individual risk factors of health care workers.

6. To undertake research in priority areas of occupational health and safety and share the results.

7. To continue collaboration with WHO Collaborating Centres (RAMS, Moscow), continue working with the WHO Regional Office for Europe and the WHO Country Office.

**Subjects:**

1. Occupational health

**Types of activity:**

1. Research

2. Coordination of activities carried out by several institutions (e.g. other WHO collaborating centres)

**Responsible officer:**
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(41-22) 791 4298
kortume@who.int

**Technical counterpart:**
Rokho Kim
rki@ecelbonn.euro.who.int

**Registey file ref:**
O2/286/2 (42)
### WHO Collaborating Centre for Research & Training in Mental Health

**Director / Head:** Juan José López-Ibor  
jlpezibor.hcsc@salud.madrid.org

**Institution:** Instituto de Psiquiatría y Salud Mental  
Hospital Universitario San Carlos

**Address:**  
Plaza Cristo Rey s/n, E-28040 Madrid

**Phone:** (34-1) 330 3572  
Fax: (34-1) 330 3572  
Web site: hcsc.es

**Date of designation:** 01 May 1991  
**Last redesignation:** 24 Jul 2009  
**Expiry:** 24 Jul 2013

**Terms of reference:**

1. To carry out research on the etiopathogenesis of mental disorders as the basis for a new nosological approach

   A great part of the research of the WHO Collaborating Center in Madrid is oriented to this nosological perspective with the goal of finding a more accurate diagnostic approach which can help to make individualized prescriptions both biological and psychotherapeutical for patients. This broad goal is the umbrella for the bullets 2 and 3.

   The WHO Collaborating Center in Madrid has intensively been involved with the development of ICD-10 Chapter on Mental Disorders in its different versions and with the instruments attached to it.

   Prof. Juan J. López-Ibor is at present a member of the Task Force on DSM-V and of the Global Scientific Partnership Coordinating Group constituted by the WHO International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders.

2. To carry out research on the neurobiological approaches to the diagnosis of mental disorders

   At present the WHO Collaborating Center is carrying out research on several mental disorders with neuroimaging techniques (fMRI, MEG, PET) using cognitive paradigms to see how the brain solves tasks in these diseases and in normal subjects.

   The second line of research is psychoneuroendocrinology used to disentangle stress, depression and some behaviours frequent in patients with personality or eating disorders.

   The third approach is genetic, trying to find both vulnerability genes and genes that protect from the appearance of diseases.

3. To carry out research on epistemology

   The new cognitive sciences have brought new data on delusions and other psychopathological manifestations which should be considered under the light of the historical and philosophical research so rich in psychiatry.

4. To develop programs of interventions in disaster interventions and psychotraumatology

   The WHO Collaborating Center in Madrid has been involved in the response in disasters such as the train bombings in Madrid 11th March 2004 and participates in the creation of a network of centers of Northern and Southern Mediterranean countries to fight the consequences of disasters and of mass violence in children (Child Trauma Network). The outcome of this experience and studies will be an e-learning program in internet, freely available and in several languages for training, guidance and interventions in such situations.
5. Evidence based mental health

In the past many approaches to mental health delivery of care have been highly influenced by ideologies. The Institute of Psychiatry and Mental Health has been a good opportunity to try to implement managerial techniques to a clinical unit serving a catchment area of 550,000 inhabitants and being reference for special programs for the rest of Madrid (psychotrauma and homeless mentally ill persons).

The Institute is organised along the model of the EFQM quality approach and all its elements are evaluated under scientific perspectives, including the outcome in patients.

**Subjects:**
1. Mental health & neurosciences
2. Classifications of diseases

**Types of activity:**
1. Providing technical advise to WHO
2. Standardization of terminology and nomenclature
3. Development and application of appropriate technology

**Responsible officer:**
Shekhar SAXENA
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Email: saxenas@who.int

**You can also contact:**

**Technical counterpart:**
BAUMANN Anja Esther
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Email: baumanna@who.int

**Registry file ref:**
M4/286/4(6)
### WHO Collaborating Centre for Research, Reference and Training on Molecular Characterization of HIV

**Director / Head:**
- Dr Michael M Thomson
- Dr Lucía Pérez-Alvarez

**Institution:**
Department of HIV Biology and Variability National Center for Microbiology
Instituto de Salud Carlos III

**Address:**
Ctra. Majadahonda-Pozuelo, Km. 2.  
28220 Madrid

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**Country:** SPAIN  
**Region:** EURO

**Phone:** +34-91 8223900  
**Fax:** +34-91 5097014

**Web site:** [http://www.isciii.es/htdocs/centros/microbiologia/microbiologia_presentacion.jsp](http://www.isciii.es/htdocs/centros/microbiologia/microbiologia_presentacion.jsp)

**Date of designation:** 09 Aug 2005  
**Last redesignation:** 28 Sep 2009  
**Expiry:** 28 Sep 2013

**Terms of reference:**
1. Molecular epidemiology of HIV-1: characterization of subtypes, circulating recombinant forms (CRF), unique recombinant forms (URF) and intrasubtype variants in selected countries of interest for HIV vaccine development.
2. Isolation, biological characterization and production of stocks of HIV-1 strains of interest for HIV vaccine development.
3. Studies on HIV antiretroviral drug resistance against reverse transcriptase inhibitors (nucleoside analogs & non-nucleoside drugs), protease inhibitors, fusion inhibitors, integrase inhibitors, and entry inhibitors.
4. Construction of functional envelope clones of different HIV-1 genetic forms
5. Training of selected scientists from developing countries (individual training, workshops) on HIV phylogeny, molecular epidemiology and antiretroviral drug resistance.
6. Preparing, publishing and sharing technical materials, guidelines & scientific articles.

**Subjects:**
1. HIV/AIDS

**Types of activity:**
1. Implementation of WHO programmes and activities at country level
2. Product development (guidelines; manual; methodologies; etc.)
3. Training and education

**Responsible officer:**
Marie-Paule KIENY  
**Phone:** (41-22) 791 3591  
**Email:** kienym@who.int

**You can also contact:**

**Technical counterpart:**
Ulrich Laukamm-Josten  
**Phone:** (45-39) 17 1450  
**Email:** ULJ@euro.who.int

**Registry file ref:** A21/286/18
### WHO Collaborating Centre for Research and Training in Reproductive Health

**Title of the centre:**
WHO Collaborating Centre for Research and Training in Reproductive Health

**Director / Head:**
Professor Adolf LUKANOVIĆ  
adolf.lukanovic@guest.arnes.si  
Doctor Mojca PIRC  
mojca.pirc@guest.arnes.si

**Institution:**
Department of Obstetrics and Gynaecology  
University of Medical Centre Ljubljana

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1000

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SLOVENIA  
**Region:**
EURO

**Phone:**
(386-1) 522 6200  
**Fax:**
(386-1) 522 6130

**Date of designation:**
18 Mar 2005  
**Last redesignation:**
28 May 2009  
**Expiry:**
28 May 2013

**Terms of reference:**
1. To continue to carry out research activities of national relevance in the areas of women’s reproductive health (fertility, infertility, menopause), genetics, male reproductive health.
2. To act as a resource centre for the development of national guidelines for reproductive health, based on research results carried out in the Centre or elsewhere, and provide advice on relevant adaptation methods and technologies in accordance with the legal context of the country.
3. To collaborate in multicentre clinical trials designed to assess the safety, effectiveness and acceptability of existing and new fertility regulating agents with the framework of the WHO Special Programme of Research, Development and Research Training in Human Reproduction, Department of Reproductive Health and Research.
4. To advocate WHO strategic documents and carry out training courses and continuing education activities for physicians, nurses and other health professionals on sexual and reproductive health issues.

**Subjects:**
1. Reproductive health (excluding HIV/AIDS)

**Types of activity:**
1. Research  
2. Information dissemination  
3. Training and education

**Responsible officer:**
Alexis Bagalwa NTABONA  
(41-22) 791 3350  
ntabonaa@who.int

**Registry file ref:**
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<th>Centre Collaborateur de l'OMS pour la Recherche et la Prévention à base Communautaire en Matière de Maladies Cardiovasculaires</th>
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**Director / Head:**
- Fred Paccaud
  - iumsp@chuv.ch
- Pascal Bovet
  - Pascal.Bovet@chuv.ch

**Institution:**
- Institut universitaire de Médecine sociale et préventive (IUMSP)
- Université de Lausanne

**Address:**
- 17 Rue du Bugnon, 1005 EU

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**Date of designation:** 01 May 1994
**Last redesignation:** 24 Jul 2009
**Expiry:** 24 Jul 2013

**Terms of reference:**
1. To support the WHO Global Program on Monitoring and Prevention of CVD in Developing Countries by conducting research on epidemiology and prevention of CVD in populations in health transition
2. To monitor the frequency of CVD and related risk factors in populations in health transition
3. To develop, implement, and evaluate prevention programs of CVD
4. To support basic epidemiologic research in developing countries, with respect to CVD, but also diabetes, diet, hypertension, and others
5. To train health workers in population-based epidemiology, notably in the field of CVD
6. To strengthen the collaboration between developing countries and developed countries in the field of epidemiology

**Subjects:**
1. Cardiovascular diseases
2. Health information; statistics; measurement & trend assessment
3. Noncommunicable diseases other than those specifically mentioned

**Types of activity:**
1. Collection; collation and dissemination of information
2. Information dissemination
3. Provision of reference substances and other services

**Responsible officer:**
- Shanthi P.B. MENNIS
  - (41-22) 791 3441
  - mendiss@who.int

**Technical counterpart:**
- Agis TSOUROS
  - +45 39171509
  - ats@euro.who.int

**Registry file ref:** C3/286/46
**WHO Collaborating Centre for Bioethics**

**Director / Head:**
Nikola Biller-Andorno  

biller-andorno@ethik.uzh.ch  

biomed@ethik.uzh.ch

**Institution:**
Institute for Biomedical Ethics (IBME)  

University of Zürich

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SWITZERLAND

**Region:**  
EURO

**Phone:**  
+41-44-634-8380/81  

Fax:  
+41-44-634-8389

**Web site:**  
http://www.ethik.uzh.ch/ibme/

**Date of designation:**  
27 Apr 2009

**Last redesignation:**  
27 Apr 2009

**Expiry:**  
27 Apr 2013

**Terms of reference:**
1. To assist WHO in developing materials for educational (or advocacy) purposes in biomedical and public health ethics.
2. To collaborate with WHO and academic institutions, in particular in Eastern Europe, for training activities in bioethics/research ethics for both researchers and ethics review committee members. Within the context of this collaboration to create an exchange program for interns and PhD students from developing countries.
3. To participate in WHO consultations and the preparation and review of relevant documents on emerging issues in bioethics.
4. To contribute to networking with other collaborative centers, institutional partners and experts.
5. To collaborate in research projects in the field of biomedical and public health ethics.

**Subjects:**
1. Ethics
2. Research policy & development
3. Organ transplantation

**Types of activity:**
1. Providing technical advise to WHO
2. Organization of events (e.g. conferences; summits)
3. Others

**Responsible officer:**
Andreas REIS  

Email: reisa@who.int

**You can also contact:**

Email:

**Technical counterpart:**
Enrique Gerardo LOYOLA ELIZONDO  

Email: enl@euro.who.int

**Registry file ref:**
Title of the centre:
WHO Collaborating Centre for Reference and Research on Influenza

Director / Head:
Dr John McCauley john.mccauley@nimr.mrc.ac.uk
Dr Rod Daniels rdaniel@nimr.mrc.ac.uk

Institution:
Division of Virology
National Institute for Medical Research, Medical Research Council

Address:
The Ridgeway Mill Hill - NW7 1AA
NW7 1AA

Town: London
Country: UK
Region: EURO

Phone: (44-208) 816 2141
Fax: (44-208) 906 4477
Web site: http://www.nimr.mrc.ac.uk

Date of designation: 01 Jan 1957
Last redesignation: 27 May 2009
Expiry: 27 May 2013

Terms of reference:

1. To obtain, fully characterize & preserve representative strains from outbreaks in different parts of the world:

   Influenza viruses circulating in the human population:
   • Obtain/receive virus isolates and clinical specimens
   • Isolate viruses, in cell culture and eggs, from clinical samples, especially in relation to potential vaccine candidates
   • Conduct antigenic analyses of virus isolates by HI (and virus neutralization, when necessary) to monitor antigenic drift and identify new antigenic variants
   • Conduct genetic (including complete genome) analyses of selected viruses
   • Monitor antiviral susceptibility
   • Provide timely reports of results to originating lab and WHO and share information with other CCs and GISN members on a regular basis
   • Maintain an archive of viruses
   • Prepare reference post-infection ferret antisera
   • Provide reagents (viruses and antisera) on request.
   • Provide information on updated PCR primers for diagnosis and gene sequencing

   Novel human influenza infections / animal influenza viruses / potential pandemic viruses (H5 Ref Lab):
   • Receive clinical specimens and virus isolates of novel (e.g. H5N1) human influenza infections, of potential pandemic significance
   • Isolate viruses in cell culture and eggs
   • Determine complete genomes of uncharacterized viruses and phylogenetic relationships with other viruses of the same and different subtypes
   • Analyse antigenic relationships
   • Conduct serological studies of possible virus infections and cross-reactivity of immune responses
   • Monitor changes in influenza viruses circulating in animals (e.g. pigs, horses) and, where appropriate, avian species, with potential for human infection
   • Obtain representative animal viruses for characterization and preparation of updated reference reagents
   • Update reagents for diagnosis and characterization of influenza viruses
   • Maintain a repository of reference viruses, antisera and PCR primers for all subtypes, to identify unusual human infections

   General:
   • Assist GISN members by providing advice on diagnostic techniques, virus isolation and characterization
   • Provide relevant epidemiological and virological information on request
   • Stimulate active collaboration with NICs and donor research institutes
2. To advise on the strains which should be included in influenza vaccines:
   • Participate in the biannual influenza vaccine consultation meetings
   • Contribute to pre-meeting teleconferences
   • Provide information on the characteristics of contemporary human viruses and the identity of new antigenic variants
   • Provide up-to-date reports on human and potential pandemic viruses
   • Provide advice on the selection of suitable seasonal vaccine candidates
   • Participate in the selection and development of candidate influenza vaccine viruses for pandemic preparedness and response

3. To arrange for the training of research workers in specialized techniques:
   • Provide facilities for training current and future participants in GISN in basic and specialized techniques, relating to influenza diagnosis, virus characterization and data analyses
   • Organize and participate in formal training courses on diagnostic techniques, antigenic and genetic characterization, and drug susceptibility testing.

4. In collaboration with the Global Influenza Programme at WHO in Geneva, to collect & distribute virological and epidemiological information about the prevalence of influenza in different parts of the world:
   • Share with WHO up-to-date information provided by NICs
   • Copy to WHO reports to NICs of the characteristics of viruses and relative proportions of different circulating A and B

5. To conduct research related to reference activities:
   • Investigate the consequences of amino acid changes on the antigenic and functional properties of HA
   • Develop procedures for routine monitoring of changes in receptor binding of HA
   • Determine the structural bases of changes in HA receptor binding, in relation to antigenic drift of human viruses and pandemic potential of animal viruses
   • Determine the structural bases of drug resistance for different NAI-resistant viruses
   • Investigate factors influencing the emergence and persistence of viruses resistant to M2 inhibitors
   • Investigate alternative/improved techniques for characterization of viruses and interpretation of data in the context of virus evolution and optimizing selection of vaccine strains.
   • Investigate serological responses to natural infection by novel viruses and to candidate vaccines, in relation to correlates of protection
   • Collaborate on the use of qualified cell lines for isolation of potential candidate vaccine viruses

Subjects:
1. Influenza

Types of activity:
1. Provision of reference substances and other services
2. Providing technical advise to WHO
3. Outbreaks and emergencies

Responsible officer: Wenqing ZHANG
Phone: (41-22) 791 4282
Email: zhangw@who.int

You can also contact:

Technical counterpart: caroline brown
Phone: cbr@euro.who.int

Registry file ref: I2/286/2
### Title of the centre:

**WHO Collaborating Centre for Identification & Characterization of Schistosome Strains & their Snail Intermediate Hosts**

### Director / Head:

David Rollinson  
d.rollinson@nhm.ac.uk

### Institution:

Department of Zoology, Biomedical Parasitology Division, Wolfson Wellcome Biomedical Laboratories  
Natural History Museum

### Address:

Cromwell Road  
South Kensington, SW7 5BD

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<td>44-(0)207 942 5181 / 5152</td>
<td>44-(0)207 942 5518</td>
<td><a href="http://www.nhm.ac.uk/">http://www.nhm.ac.uk/</a></td>
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### Date of designation:

01 Dec 1980

### Last redesignation:

15 Dec 2008

### Expiry:

15 Dec 2012

### Terms of reference:

1. The use of modern methodology in the field of molecular biology, biochemistry, genetics, ecology & parasitology, for the identification & characterization of various schistosome species/strains & their snail intermediate hosts isolated in different endemic areas.

2. The collection of reference snail species & on request, identification of specimens referred from field investigators.

3. The study of the interactions between parasites and hosts and the implications for epidemiology and control of diseases.

### Subjects:

1. Schistosomiasis
2. Vector biology & control
3. Research policy & development

### Types of activity:

1. Research
2. Information dissemination
3. Standardization of terminology and nomenclature

### Responsible officer:

Dirk A. ENGELS  
(41-22) 791 3862  
engelsd@who.int

### You can also contact:

Email:

### Technical counterpart:

Nedret Emiroglu  
(45-39) 17 1450  
nem@euro.who.int

### Registry file ref:

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<td>Active</td>
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**Title of the centre:**
WHO Collaborating Centre for Community Control of Hereditary Disorders

**Director / Head:**
Bernadette Modell
b.modell@pcps.ucl.ac.uk
d.ingram@chime.ucl.ac.uk

**Institution:**
Department of Health Informatics & Multiprofessional Education (CHIME)

**Address:**
Holborn Union Building  Whittington Campus  Highgate Hilll, - N19 5L
N19 5L

**Country:**
UK

**Region:**
EURO

**Phone:**
(44-20) 7288 5733

**Fax:**
(44-20) 7281 8004

**Web site:**
www.chime.ucl.ac.uk

**Date of designation:**
01 Feb 1986

**Last redesignation:**
12 Feb 2008

**Expiry:**
12 Feb 2012

**Terms of reference:**
1. To extend existing web-based global databases on the epidemiology of genetic disorders.
2. To further develop the web-based Accessible Publishing of Genetic Information (APoGI) system for patients and health professionals.
3. To develop instruments facilitating transmission of genetic information within families.
4. To further develop the Iranian demonstration model for the control of common genetic disorders at the community level.
5. To develop training materials on the principles of community genetics.

**Subjects:**
1. Genetics & hereditary diseases
2. Health promotion & education

**Types of activity:**
1. Development and application of appropriate technology
2. Training and education
3. Information dissemination

**Responsible officer:**
Shanthi MENDIS
(41-22) 791 3441
mendiss@who.int

**You can also contact:**

**Technical counterpart:**
Agis Tsouros
+45 39171509
ATS@euro.who.int

**Registry file ref:**
G3/286/2
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</table>

**Title of the centre:**
WHO Collaborating Centre for Training, Evaluation & Research in Diabetes

**Director / Head:**
Nigel Unwin
Philip.Home@newcastle.ac.uk

**Institution:**
The Diabetes Research Group, School of Clinical Medical Sciences
University of Newcastle-upon-Tyne Medical School

**Address:**
Faculty of Medical Sciences, Medical School, Framlington Place - NE2 4HH
NE2 4HH

**Town:**
Newcastle Upon Tyne

**Country:**
UK

**Region:**
EURO

**Phone:**
(44-191) 222 7372

**Fax:**
(44-91) 222 8211

**Web site:**
http://www.ncl.ac.uk/biomedicine/

**Date of designation:**
01 Jul 1987

**Last redesignation:**
16 Feb 2008

**Expiry:**
16 Feb 2012

**Terms of reference:**
1. To assist WHO with the implementation of its joint programme with the International Diabetes Federation, Diabetes Action Now
2. To assist WHO in health personnel training & to act as a training centre in diabetes for clinical workers, epidemiologists and public health specialists, laboratory workers, technologists & other paramedical workers.
3. To assist WHO in evaluating the public health importance of the putative link between diabetes and tuberculosis, particularly in low and middle income countries
4. To assist WHO in evaluating the economic impact of diabetes, particularly in low and middle income countries
5. To assist WHO in the completion of a report on the prevention of diabetes and its complications
6. To assist WHO in the completion of a report, and subsequent peer reviewed publication, on the relationship between diabetes and socio economic status

**Subjects:**
1. Diabetes

**Types of activity:**
1. Implementation of WHO programmes and activities at country level
2. Product development (guidelines; manual; methodologies; etc.)
3. Providing technical advise to WHO

**Responsible officer:**
ROGLIC Gojka
Phone: (41-22) 791 4306
Email: roglicg@who.int

**You can also contact:**

**Technical counterpart:**
TSOUROS Agis
Phone: +45 39171509
Email: ats@euro.who.int

**Registry file ref:**
D5/286/7
### WHO Collaborating Centre for Reference & Research on Poliomyelitis

**Director / Head:**
Dr Philip Minor  
enquiries@nibsc.ac.uk

**Institution:**
National Institute for Biological Standards & Control

**Address:**
Blanche Lane, South Mimms - EN6 3QG Hertfordshire
EN6 3QG  
Hertfordshire

**Date of designation:**
01 Nov 1989

**Last redesignation:**
16 Feb 2008

**Expiry:**
16 Feb 2012

### Terms of reference:
1. To provide definitive identification where appropriate of poliovirus isolates from different surveillance activities using monoclonal antibodies and/or molecular methods to differentiate wild, vaccine and vaccine-derived strains.
2. To produce and distribute working reagents and International standards to be used in different poliovirus assays.
3. To act as a resource for the development and use of training materials and to provide training sites.
4. To perform research on the molecular biology of poliovirus in relation to the Global Polio Eradication Initiative (GPEI) and the strategies to interrupt polio immunisation after eradication is achieved.
5. To organize and participate in collaborative studies to assess proposed standards, reference materials and methodologies or to answer specific research questions related to the GPEI providing appropriate information to WHO/HQ and Regional Offices.
6. To provide independent technical expertise and advice for assessing the safety, potency, efficacy and QC of poliovaccines.
7. To investigate and develop new and improved methodologies for the assessment of the safety of live-attenuated oral poliovaccine (OPV).
8. To investigate and develop new and improved International standards and methodologies for the standardisation of poliovirus inactivated vaccine (IPV).
9. To take an active part in meetings of designated collaborating and reference laboratories organised by WHO.

### Subjects:
1. Poliomyelitis
2. Health Technology (including laboratory services; but excluding blood safety)
3. Vaccines

### Types of activity:
1. Research
2. Training and education
3. Providing technical advise to WHO

### Responsible officer:
Esther Mary DE GOURVILLE  
degourvillee@who.int

### You can also contact:

#### Technical counterpart:
Eugene Gavrilin  
ega@euro.who.int

### Registry file ref:
P7/286/16
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**Title of the centre:**
WHO Collaborating Centre for Research and Training in Neurosciences

**Director / Head:**
Prof J.W.A.S SANDER  
ley_sander@yahoo.co.uk

**Institution:**
Department of Clinical and Experimental Epilepsy  
UCL Institute of Neurology

**Address:**
33 Queen Square - WC1N 3BG  
WC1N 3BG

**Town:**
London  
**Country:**
UK  
**Region:**
EURO

**Phone:**
(44-20) 7837 3611  
Fax:
(44-20) 7837 3941  
**Web site:**
http://ww[.ion.ucl.ac.uk/research/epilepsy/epilepsy_intro.htm

**Date of designation:**
23 Feb 1995  
**Last redesignation:**
29 Aug 2006  
**Expiry:**
29 Aug 2010

**Terms of reference:**
1. To produce, compile & disseminate epidemiological data on neurological disorders & particularly epilepsy.
2. To undertake research related to: a) diagnosis & classification of epilepsy; b) elucidation of the mechanism of epilepsy including genetics; c) prevention & treatment of epilepsy; d) services for people with epilepsy; d) public health aspects of epilepsy.
3. To develop & promote strategies for the inclusion of the management of epilepsy into primary health care.
4. To develop training programmes for health workers in the field of epilepsy at the request of WHO.
5. To collaborate with other WHO Collaborating Centres.

**Subjects:**
1. Mental health & neurosciences

**Types of activity:**
1. Research
2. Training and education
3. Information dissemination

**Responsible officer:**
Tarun DUA  
Phone:
(41-22) 791 3039  
**Email:**
duat@who.int

**You can also contact:**

**Technical counterpart:**
BAUMANN Anja Esther  
Phone:
(45-39) 17 1391  
**Email:**
baumanna@who.int

**Registry file ref:**
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**Title of the centre:**
WHO Collaborating Centre for the Surveillance of Congenital Anomalies

**Director / Head:**
Prof Helen DOLK  
H.Dolk@ulster.ac.uk

**Institution:**
EUROCAT Central Registry, School of Health Sciences  
University of Ulster

**Address:**
Room 15E12 Shore Road - Co Antrim BT37 0QB  
Co Antrim BT37 0QB

**Town:**
Newtonabbey

**Country:**
UK

**Region:**
EURO

**Phone:**
(44-2890) 366 639

**Fax:**
(44-2890) 368 341

**Web site:**
http://www.eurocat.ulster.ac.uk

**Date of designation:**
06 Nov 2002

**Last redesignation:**
19 May 2007

**Expiry:**
19 May 2011

**Terms of reference:**
1. To provide essential epidemiologic information on congenital anomalies in Europe.
2. To facilitate the early warning of teratogenic exposures & act as an information and resource centre regarding clusters, exposures or risk factors of concern.
3. To evaluate the effectiveness of primary prevention & assess the impact of developments in prenatal screening.
4. To promote the exchange of experience on population-based registration methods, classification & coding of congenital anomalies, & surveillance methods.

**Subjects:**
1. Noncommunicable diseases other than those specifically mentioned

**Types of activity:**
1. Information dissemination
2. Evaluation
3. Product development (guidelines; manual; methodologies; etc.)

**Responsible officer:**
Shanthi MENDIS  
(41-22) 791 3441  
mendiss@who.int

**You can also contact:**
Email:

**Technical counterpart:**
Agis Tsouros  
+45 39171509  
ATS@euro.who.int

**Registry file ref:**
G3/286/10
### WHO Collaborating Centre for Public Health Issues on Congenital Anomalies and Technology Transfer (Treatment and Management of Craniofacial Anomalies)

**Title of the centre:**
WHO Collaborating Centre for Public Health Issues on Congenital Anomalies and Technology Transfer (Treatment and Management of Craniofacial Anomalies)

**Director / Head:**
Prof William Christie SHAW
bill.shaw@manchester.ac.uk

**Institution:**
Orthodontic Unit
University of Manchester

**Address:**
Oxford Road - M13 9PL
M13 9PL

**Phone:**
(44-161) 275 6620
**Fax:**
(44-161) 275 6794

**Date of designation:**
02 Dec 2004
**Last redesignation:**
27 May 2009
**Expiry:**
27 May 2013

**Terms of reference:**
1. To initiate a global network of research in the understanding, treatment & prevention of CFA in collaboration with WHO Human Genetics Programme, the University of Dundee, University of Iowa & State University of Ulm.
2. To define methodologies, protocols & research opportunities for:
   - Clinical trials;
   - Quality improvement strategies for CFA clinical services;
   - Critical evaluation of rare/complex interventions;
   - Surgical missions & services supported by non-governmental organizations;
   - Technology transfer & tissue engineering.
3. To contribute to the development of a web-based directory of resources to support CFA research.
4. To initiate and support multinational clinical trials of cleft lip and palate surgery
5. To promote the global database and network of research collaboration involving new centres worldwide

**Subjects:**
1. Genetics & hereditary diseases
2. Health Technology (including laboratory services; but excluding blood safety)
3. Research policy & development

**Types of activity:**
1. Coordination of activities carried out by several institutions (e.g. other WHO collaborating centres)
2. Product development (guidelines; manual; methodologies; etc.)
3. Research

**Responsible officer:**
Shanthi P.B. MENDIS
(41-22) 791 3441
mendiss@who.int

**You can also contact:**
Agis TSOUROS
+45 39171509
ats@euro.who.int

**Registry file ref:**
G3/286/13
### WHO Collaborating Centre for Surveillance, Epidemiology & Control of Influenza

**Title of the centre:**
WHO Collaborating Centre for Surveillance, Epidemiology & Control of Influenza

**Director / Head:**
- Dr Nancy COX  \(njc1@cdc.gov\)
- Dr Alexander KLIMOV  \(axk0@cdc.gov\)

**Institution:**
Centers for Disease Control & Prevention (CDC)

**Address:**
1600 Clifton Road, A-20 - GA 30333
30333
Georgia

**Town:**
Atlanta

**Country:**
USA

**Region:**
AMRO

**Date of designation:**
01 Jan 1956

**Last redesignation:**
29 Apr 2010

**Expiry:**
29 Apr 2014

**Terms of reference:**
1. To maintain national & international surveillance for influenza & contribute data to WHO influenza vaccine strain selection.
2. To conduct virological & epidemiological studies on the mechanisms by which human & animal influenza viruses evolve, become transmissible & spread to cause epidemics & pandemics.
3. To evaluate the impact of influenza epidemics, & to initiate collaborative research to increase knowledge on the epidemiology & burden of disease of influenza & other respiratory diseases.
4. To develop new types of vaccines & evaluate traditional newer forms of vaccines for protection against influenza.
5. To evaluate the effectiveness & monitor the susceptibility of antiviral drugs, to study strategies for deployment of vaccines & antiviral drugs & provide public health recommendations.
6. To provide technical assistance, including training, to strengthen & expand the WHO Global Influenza Surveillance Network, & to provide laboratory & epidemiologic assistance for outbreak investigations.
7. To produce & supply epidemic & pandemic vaccine reference strains & diagnostic reagents for members of the WHO Global Influenza Surveillance Network & other institutions.
8. To develop, evaluate & standardize alternative laboratory tests such as virus neutralization test for detecting & evaluating antigenic drift & to establish new technologies for vaccine strain selection including genetic evolution modeling.

**Subjects:**
1. Influenza

**Types of activity:**
1. Product development (guidelines; manual; methodologies; etc.)
2. Outbreaks and emergencies
3. Providing technical advise to WHO

**Responsible officer:**
Wenqing ZHANG  
Phone: (41-22) 791 4282  
Email: zhangw@who.int

**Technical counterpart:**
Otavio F. Pinheiro de OLIVA  
Phone: (1-202) 974 3707  
Email: olivaota@paho.org

**Registry file ref:**
I2/286/3
### Title of the centre:
**WHO Collaborating Centre for Smallpox and Other Poxvirus Infections**

### Director / Head:
**Inger K. Damon**  
iad7@cdc.gov

### Institution:
Poxvirus Section, Viral Exanthems & Herpes Virus Branch (VEHB), Division of Viral & Rickettsial Diseases (DVRD)  
National Center for Infectious Diseases (NCID), Center for Disease Control and Prevention (CDC)

### Address:
1600 Clifton Road, Mailstop G18, Bldg 7 Rm 340 - GA 30333  
GA 30333

### Town: **Atlanta**  
Country: **USA**  
Region: **AMRO**

### Phone: (1-404) 639 4931  
Fax: (1-404) 639 1060  
Web site: [http://www.cdc.gov](http://www.cdc.gov)

### Date of designation: **01 Jan 1967**  
Last redesignation: **19 Jul 2007**  
Expiry: **19 Jul 2011**

### Terms of reference:
1. To maintain capability in terms of both personnel & facilities for laboratory diagnosis of smallpox & other viruses in the group of orthopoxviridae.
2. To register with WHO all recombinant plasmids containing variola virus DNA sequences produced in the laboratory & the distribution of these plasmids.
3. To maintain the collection of variola virus strains until such time as determined by the WHO & the World Health Assembly. To develop & maintain reference collections of vaccinia viruses & other poxviruses capable of causing human infections.
4. To cooperate with WHO in implementing the recommendations of the World Health Assembly regarding retention or destruction of the remaining stocks of variola virus, including all whitepox viruses, viral genomic DNA, clinical specimens & other material containing infectious variola.
5. To serve as an international resource centre for facilitating poxvirus research. The goals of this research include development of: a) enhanced methods of diagnosis; b) novel treatment strategies; c) development of smallpox prevention strategies in the face of possible terrorist events; d) better understanding poxvirus pathogenesis & host immune responses (including response to vaccinia vaccine); e) enhanced methods for virus identification & characterization (including genomic analysis); f) collaborate in development of 3rd generation smallpox vaccines, g) monitoring the status of potential emergent zoonotic poxviruses.
6. To submit an annual report to WHO on the relevant work of the Centre.

### Subjects:
1. Smallpox  
2. Communicable diseases other than those specifically mentioned

### Types of activity:
1. Collection; collation and dissemination of information

### Responsible officer:
**FORMENTY Pierre B.H.**  
Phone: (41-22) 791 3896  
Email: formentyp@who.int

### You can also contact:

### Technical counterpart:
**OLIVA Otavio F. Pinheiro de**  
Phone: (1-202) 974 3707  
Email:

### Registry file ref:
S2/286/5
## Title of the centre:
WHO Collaborating Centre for Studies on the Ecology of Influenza in Animals

## Director / Head:
Richard Webby
Richard.webby@stjude.org

## Institution:
Department of Virology & Molecular Biology
St. Jude Children's Research Hospital, University of Tennessee

## Address:
Department of Infectious Diseases, Division of Virology 262 Danny Thomas Place, MS330,38105-3678,Tennessee

## Town:
Memphis

## Country:
USA

## Region:
AMRO

## Phone:
(901) 595 3400

## Fax:
(901) 595-8559

## Web site:
http://www.stjude.org

## Date of designation:
01 Jan 1975

## Last redesignation:
03 Jul 2008

## Expiry:
03 Jul 2012

## Terms of reference:

### 1. To elucidate the role of influenza viruses in the national ecosystems of the world in the emergency of epidemic & pandemic influenza in lower animals & humans.

### 2. To develop an animal influenza network, elaborated in the following appendix: APPENDIX Goals for the proposed animal influenza network: 1. There is a need to complement the existing WHO Influenza Surveillance Programme with a collaborative laboratory network which pursues the following medium & long-term objectives: a) Promote the collection & characterisation (antigenic and genetic) of animal influenza viruses of potential significance to human health from various parts of the world, especially Asia (Focusing initially on China & adjacent areas), & facilitate the exchange of reference virus strains, antisera, & other biological materials. b) Facilitate scientific exchange & ensure rapid communication between the network members; the WHO secretariat & participants in the WHO Influenza Surveillance Programme. c) Coordinate standardization of diagnostic techniques & develop reagents for rapid identification of animal influenza viruses to assist surveillance, including: Antibody based tests (Polyclonal & monoclonal antibodies); PCR based diagnosis (primers for sequence analysis & future development of DNA chip technology). d) Develop & coordinate research projects on the molecular biology of animal influenza viruses. e) Facilitate & academic exchange on diagnosis & surveillance of animal influenza viruses. f) Expand the genomic database for animal influenza viruses. g) Assist production of non-pathogenic high-growth reassortant influenza viruses of all HA subtypes suitable for future vaccines (to combat initial threat of a pandemic). h) Increase understanding of gene constellations responsible for interspecies transmissibility & human pathogenicity of animal influenza viruses. The proposed network (WHO Animal Influenza Network [AIN]) would be an integral component of the WHO Influenza Surveillance Programme, focusing on aspects of ecology & molecular biology of animal influenza viruses in the context of human health, & would be coordinated by the WHO Secretariat.

### 3. During the establishment & development of the AIN, due attention must be paid to potential conflicts of interest between public health & the agricultural/veterinary services in relation to surveillance & reporting of animal influenza. Collaboration with, or endorsement by all interested parties (international organizations such as FAO & OIE, national public health & veterinary authorities) is therefore critical.

### 4. To sustain long-term the collaborative work of the AIN at the interface between interest of human & animal health authorities, it must generate information of mutual benefit which includes a discernable contribution to agricultural/veterinary services & is of significance for public health action & policies.

### 5. To promote the long-term development of a sustainable network, the following general criteria are also considered particularly important: a) A strong academic basis for the work of the network; b) Network activities should address practical issues & benefit all participants; c) The development & maintenance of confidence between network members; d) Sufficient flexibility in collaboration to accommodate the diverse interest of the various partners; e) Informal information exchange facilitated by the AIN WHO Secretariat; f) Strategic development & expansion of the network through consultation within the AIN network coordinated by the AIN WHO Secretariat; g) Maintenance of momentum within the network by standardization of reagents, external quality assurance programmes, training courses & annual meetings; h) It is essential that separate laboratory facilities be used for the isolation of influenza viruses from lower animals & from humans. The isolation of novel influenza viruses from animals including humans should be confirmed by resolution & where possible by direct immuno fluorescence, diagnostic PCR &/or serology.

## Subjects:

1. 3. During the establishment & development of the AIN, due attention must be paid to potential conflicts of interest between public health & the agricultural/veterinary services in relation to surveillance & reporting of animal influenza. Collaboration with, or endorsement by all interested parties (international organizations such as FAO & OIE, national public health & veterinary authorities) is therefore critical.

2. 4. To sustain long-term the collaborative work of the AIN at the interface between interest of human & animal health authorities, it must generate information of mutual benefit which includes a discernable contribution to agricultural/veterinary services & is of significance for public health action & policies.

3. 5. To promote the long-term development of a sustainable network, the following general criteria are also considered particularly important: a) A strong academic basis for the work of the network; b) Network activities should address practical issues & benefit all participants; c) The development & maintenance of confidence between network members; d) Sufficient flexibility in collaboration to accommodate the diverse interest of the various partners; e) Informal information exchange facilitated by the AIN WHO Secretariat; f) Strategic development & expansion of the network through consultation within the AIN network coordinated by the AIN WHO Secretariat; g) Maintenance of momentum within the network by standardization of reagents, external quality assurance programmes, training courses & annual meetings; h) It is essential that separate laboratory facilities be used for the isolation of influenza viruses from lower animals & from humans. The isolation of novel influenza viruses from animals including humans should be confirmed by resolution & where possible by direct immuno fluorescence, diagnostic PCR &/or serology.

## WHO Collaborating Centres
Global database

**Ref.No. [Initiator]**
USA-147 [Headquarters]

**Status**
Active

**Title of the centre:**
WHO Collaborating Centre for Studies on the Ecology of Influenza in Animals

**Director / Head:**
Richard Webby
Richard.webby@stjude.org

**Institution:**
Department of Virology & Molecular Biology
St. Jude Children's Research Hospital, University of Tennessee

**Address:**
Department of Infectious Diseases, Division of Virology 262 Danny Thomas Place, MS330,38105-3678,Tennessee

**Town:**
Memphis

**Country:**
USA

**Region:**
AMRO

**Phone:**
(901) 595 3400

**Fax:**
(901) 595-8559

**Web site:**
http://www.stjude.org

**Date of designation:**
01 Jan 1975

**Last redesignation:**
03 Jul 2008

**Expiry:**
03 Jul 2012

**Terms of reference:**

### 1. To elucidate the role of influenza viruses in the national ecosystems of the world in the emergency of epidemic & pandemic influenza in lower animals & humans.

### 2. To develop an animal influenza network, elaborated in the following appendix: APPENDIX Goals for the proposed animal influenza network: 1. There is a need to complement the existing WHO Influenza Surveillance Programme with a collaborative laboratory network which pursues the following medium & long-term objectives: a) Promote the collection & characterisation (antigenic and genetic) of animal influenza viruses of potential significance to human health from various parts of the world, especially Asia (Focusing initially on China & adjacent areas), & facilitate the exchange of reference virus strains, antisera, & other biological materials. b) Facilitate scientific exchange & ensure rapid communication between the network members; the WHO secretariat & participants in the WHO Influenza Surveillance Programme. c) Coordinate standardization of diagnostic techniques & develop reagents for rapid identification of animal influenza viruses to assist surveillance, including: Antibody based tests (Polyclonal & monoclonal antibodies); PCR based diagnosis (primers for sequence analysis & future development of DNA chip technology). d) Develop & coordinate research projects on the molecular biology of animal influenza viruses. e) Facilitate & academic exchange on diagnosis & surveillance of animal influenza viruses. f) Expand the genomic database for animal influenza viruses. g) Assist production of non-pathogenic high-growth reassortant influenza viruses of all HA subtypes suitable for future vaccines (to combat initial threat of a pandemic). h) Increase understanding of gene constellations responsible for interspecies transmissibility & human pathogenicity of animal influenza viruses. The proposed network (WHO Animal Influenza Network [AIN]) would be an integral component of the WHO Influenza Surveillance Programme, focusing on aspects of ecology & molecular biology of animal influenza viruses in the context of human health, & would be coordinated by the WHO Secretariat.

### 3. During the establishment & development of the AIN, due attention must be paid to potential conflicts of interest between public health & the agricultural/veterinary services in relation to surveillance & reporting of animal influenza. Collaboration with, or endorsement by all interested parties (international organizations such as FAO & OIE, national public health & veterinary authorities) is therefore critical.

### 4. To sustain long-term the collaborative work of the AIN at the interface between interest of human & animal health authorities, it must generate information of mutual benefit which includes a discernable contribution to agricultural/veterinary services & is of significance for public health action & policies.

### 5. To promote the long-term development of a sustainable network, the following general criteria are also considered particularly important: a) A strong academic basis for the work of the network; b) Network activities should address practical issues & benefit all participants; c) The development & maintenance of confidence between network members; d) Sufficient flexibility in collaboration to accommodate the diverse interest of the various partners; e) Informal information exchange facilitated by the AIN WHO Secretariat; f) Strategic development & expansion of the network through consultation within the AIN network coordinated by the AIN WHO Secretariat; g) Maintenance of momentum within the network by standardization of reagents, external quality assurance programmes, training courses & annual meetings; h) It is essential that separate laboratory facilities be used for the isolation of influenza viruses from lower animals & from humans. The isolation of novel influenza viruses from animals including humans should be confirmed by resolution & where possible by direct immuno fluorescence, diagnostic PCR &/or serology.
1. Influenza

**Types of activity:**

1. Provision of reference substances and other services
2. Training and education
3. Research

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**Registry file ref:**
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**Title of the centre:**
WHO Collaborating Center for Disease Monitoring, Telecommunications and the Molecular Epidemiology of Diabetes Mellitus

**Director / Head:**
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Janice Dorman

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**Web site:**
http://www.publichealth.pitt.edu/content.php?page=170&context=ContextDegree

**Date of designation:**
22 Feb 1988

**Last redesignation:**
03 Jul 2008

**Expiry:**
03 Jul 2012

**Terms of reference:**
1. To develop systems for disease monitoring, molecular epidemiology research & training for diabetes mellitus.

**Subjects:**
1. Health information; statistics; measurement & trend assessment
2. Genetics & hereditary diseases
3. Health promotion & education

**Types of activity:**
1. Collection; collation and dissemination of information
2. Training and education
3. Development and application of appropriate technology

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