



WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTE

WHO/CDS/CPE/GBUI/2002.6
Distr.: General
Original: English

***4TH WHO ADVISORY GROUP
MEETING ON BURULI ULCER***

REPORT

5–7 March 2001

WHO Headquarters, Geneva, Switzerland

Table of Content

List of Participants.....	3
Recommendations	7
Update on Buruli ulcer control activities in Benin.....	13
Update on Buruli ulcer control activities in Côte d'Ivoire.....	17
Buruli ulcer treatment activities at the Raoul Follereau Institute of Côte d'Ivoire.....	21
Buruli ulcer activities in Ghana in 2000.....	25
One-year field testing of Buruli ulcer data collection tools in Ghana	29
<i>Mycobacterium ulcerans</i> disease in Papua New Guinea - Year 2000.....	31
Situation in Togo	35
Preliminary evaluation of the Buruli ulcer situation in the prefectures of N'zerekore, Lola and Yomou in Guinée forestière	41
Infection of animals with <i>Mycobacterium ulcerans</i>	47
Treatment of Buruli ulcer with hyperbaric oxygenation.....	51
<i>M. ulcerans</i> infection in humans and animals in Australia, March 2000 – March 2001	55
Toxin, vaccination and sequencing	57
Update on research activities at the Emory University School of Medicine.....	61
Cytokine responses to stimulation with <i>Mycobacterium ulcerans</i> antigens using an ex vivo whole blood assay.....	65
BCG vaccination in the control of Buruli ulcer.....	66
Report from Centers for Disease Control and Prevention, USA.....	71
Genome Sequence Analysis of <i>Mycobacterium ulcerans</i>	73
The potential role of hyperbaric oxygen in the treatment of Buruli ulcer.....	75
Phenolic Glycolipid-I(PGL-I) in tissue of <i>Mycobacterium ulcerans</i> infected patients.....	77
Beliefs and attitudes towards Buruli ulcer in Ghana.....	79
Manual on the management of Buruli ulcer	81
ANESVAD	83
The Buruli ulcer Project in Ghana: Support from the Italian Association Amici di Raoul Follereau (AIFO) in 2000.....	85
American Leprosy Missions (ALM).....	87

The French Raoul Follereau Association (AFRF).....	89
Aide aux Lépreux Emmaüs – Switzerland (ALES)	93
The Buruli ulcer control activities of the Luxembourg Raoul Follereau Foundation in Benin	95
Presentation summary from Humanitarian Aid Relief Team (HART).....	97
An Annual Report on Volunteer Actions for Buruli ulcer Children.....	99
MAP International.....	103
Sasakawa Memorial Health Foundation.....	105
Management of Buruli ucler (BU) in precarious area	107
Support for the National Buruli ulcer control programme in Benin, Lalo, Lalo Prefecture, Mono Department.....	111



WORLD HEALTH ORGANIZATION ORGANISATION MONDIALE DE LA SANTE

4TH WHO AD HOC ADVISORY GROUP MEETING ON BURULI ULCER

5–7 March, 2001 — WHO Headquarters, Geneva — *Salle B*

List of Participants

Dr George Amofah, Public Health Division, Ministry of Health, Accra, Ghana

Dr Kwame Asamoah, Buruli Ulcer Programme, Ministry of Health, Accra, Ghana

Dr David Ashford, Meningitis and Special Pathogens Branch, CDC, Atlanta, Georgia, USA

Dr John Buntine, Cornell Specialists' Centre , Victoria, Melbourne, Australia

Dr Lucie Avoaka Cissé, Programme National de Lutte contre l’Ulcère de Buruli, Abidjan, Côte d’Ivoire

Dr Samuel Etuaful, St Martin Catholic Hospital, Agroyesum, Ghana

Prof. Jacques Grosset, Bactériologie et Hygiène, Faculté de Médecine, Pitié-Salpêtrière, Paris, France

Dr Augustin Guédénon, Programme National de Lutte contre l’Ulcère de Buruli, Cotonou, Benin

Dr John Hayman, Department of Pathology, Box Hill Hospital, Melbourne , Australia

Dr Christian Johnson, Centre de Santé de Lalo, Cotonou, Benin

Dr Paul Johnson, Department of Infectious Diseases, Austin & Repatriation Medical Centre, Heidelberg, Melbourne, Australia

Sister Joseph, Wewak Hospital, Wewak, East Sepin Province, Papua New Guinea

Prof. Jean-Marie Kanga, Programme National de Lutte contre l’Ulcère de Buruli, Abidjan, Côte d’Ivoire

Mrs Kay Yamaguchi, Sasakawa Memorial Health Foundation, Tokyo, Japan

Dr Harold King, Department of Medicine, Division of Infectious Diseases, Emory University Atlanta, Georgia, USA

Dr Wayne M. Meyers, Division of Microbiology, Armed Forces Institute of Pathology, Washington D.C, USA

Prof. Françoise Portaels, Department of Microbiology, Institute of Tropical Medicine, Antwerp, Belgium

Dr Roger Pradinaud, Service de Dermatologie, Centre hospitalier général de Cayenne, Cayenne, French Guiana

Dr G. Battista Priuli, Hôpital St Jean de Dieu, Afagnan, Lomé, Togo

Dr Michel Sagnو, Regional Hospital Laboratory, Ministry of Health, N’Zerekore, Guinea

Dr Pamela L. Small, Department of Microbiology, University of Tennessee, Knoxville, Tennessee, USA

Dr Tim Stinear, Unité de Génétique Moléculaire Bactérienne, Institut Pasteur, Paris, France

Dr Napo Tignokpa, Programme contre la Lèpre et la Tuberculose, Ministère de la Santé, Lomé, Togo

Dr Mark Wansbrough-Jones, Division of Infectious Disease, St. George's Hospital Medical School, London, United Kingdom

Observers

Prof. Henri Assé, Institut Raoul Follereau, Abidjan, Côte d'Ivoire

Dr Giuliano Ballantini, Rotary International, Rotary Club Milano, Italy

Mrs Patricia Beauverd, Aide aux Lépreux Emmaüs-Suisse, Berne, Switzerland

Dr Gisela Bretzel, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany

Mr Gérard and Mrs Line Brunet de Courssou, Boulogne, France

Dr Kimball Crofts, Humanitarian Aid Relief Team (HART), Provo, Utah, USA

Dr Sunil Deepak, Associazione Italiana Amici di Raoul Follereau, Bologna, Italy

Dr Karen Dobos, Division of Infectious Diseases, Department of Medicine, Atlanta, Georgia, USA

Dr Tetsuya Fujikura, International Center, Kobe International University, Kobe, Japan

Dr Yukiko Fukunishi, National Sanatorium, Aomori, Japan

Mr Andrés Ginés, ANESVAD, Bilbao, Spain

Dr Marie-Thérèse Gourdier, Arpajon, France

Dr Richard Hehl, Aide aux Lépreux Emmaüs-Suisse, Berne, Switzerland

Dr Kenji Hibiya, Department of Pathology, Nippon Medical School, Tokyo, Japan

Ms Alicia Jackson, Humanitarian Aid Relief Team (HART), Provo, Utah, USA

Prof. Henry-Valère T. Kiniffo, Fondation luxembourgeoise Raoul Follereau, Luxembourg

Mr Robert Kohll, Fondation luxembourgeoise Raoul Follereau, Luxembourg

Mrs Verónica Malda, ANESVAD, Teófilo Guiard, Bilbao, Spain

Dr Jean-Pierre Maleombho, Abidjan, Côte d'Ivoire

Dr Mwanatambwe Milanga, Department of Pathology, Nippon Medical School, Tokyo, Japan

Mr Pierre Olphe-Galliard, Association Française Raoul Follereau, Paris, France

Dr Gerd Pluschke, Dept. of Molecular Immunology, Swiss Tropical Institute, Basel, Switzerland

Dr Franco Poggio, Rotary International, Rotary Club Milano, Italy

Dr Ghislaine Prévot-Linguet, Pasteur Institute, Cayenne, French Guiana

Dr Pratima Raghunathan, Meningitis and Special Pathogens Branch, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Dr Paul Saunderson, American Leprosy Missions, Greenville, South Carolina, USA

Mr Tomomi Seto, Kobe International University, Kobe, Japan

Prof. Yuki Shimomura, International Center, Kobe International University, Kobe, Japan

Mr René Staeheli, Aide aux Lépreux Emmaüs-Suisse, Berne, Switzerland

Ms Ymkje Stienstra, University Hospital, Groningen, The Netherlands

Dr Winette T.A van der Graaf, Department of Internal Medicine, University Hospital, Groningen, The Netherlands

Dr T. S. van der Werf, Department of Internal Medicine, University Hospital, Groningen, The Netherlands

Dr Ken-ichiro Hata, Department of Tissue Engineering, Nagoya University Graduate School of Medicine, Tokyo, Japan

Dr Mikihisa Yajima, Department of Pathology, Nippon Medical School, Tokyo, Japan

Dr Edouard Yao, Regional Office for West Africa, MAP International, Abidjan , Côte d'Ivoire

Dr Enzo Zecchini, Associazione Italiana Amici di Raoul Follereau, Bologna, Italy

Dr Xuel Zhou, Department of Surgery of University Kiel, Kiel, Germany

WHO Secretariat

Dr David L. Heymann, Executive Director, Communicable Diseases

Dr Maria Neira, Director, Communicable Diseases Control, Prevention & Eradication

Dr Nevio Zagaria, Coordinator, Strategy Development & Monitoring for Eradication & Elimination (CEE), Communicable Diseases Control, Prevention & Eradication

Dr Eugene Nyarko, WHO Regional Office for Africa, Harare, Zimbabwe

Dr Kingsley Asiedu, Buruli Ulcer Initiative, CEE, Communicable Diseases Control, Prevention & Eradication

Dr Elil Renganathan, Coordinator, Social Mobilization & Training (SMT), Communicable Diseases Control, Prevention & Eradication

Dr Enrico Pupulin, Coordinator, Disability & Rehabilitation (DAR), Management of Noncommunicable Diseases, Noncommunicable Diseases and Mental Health

Mr James Mullally, SMT, Communicable Diseases Control, Prevention & Eradication

Dr Denis Daumerie, Leprosy, Strategy Development & Monitoring for Eradication & Elimination, Communicable Diseases Control, Prevention & Eradication

Mr Anders Eklund, Disability & Rehabilitation (DAR), Management of Noncommunicable Diseases, Noncommunicable Diseases and Mental Health

Dr Sunil Deepak, Disability & Rehabilitation (DAR), Management of Noncommunicable Diseases, Noncommunicable Diseases and Mental Health

Participants/Observers unable to attend

Prof. Goro Asano, Nippon Medical School, Tokyo, Japan

Prof. Bernard Carbonnelle, Laboratoire de Bactériologie, Centre Hospitalier Universitaire, Angers, France

Prof. Stewart Cole, Unité de Génétique Moléculaire Bactérienne, Institut Pasteur, Paris, France

Dr Ann Kolokathis, Worldwide Anti-infectives, Pfizer Inc., New York, New York, USA

Prof. Christophe Oberlin, Groupe Hospitalier Bichat-Claude Bernard, Service de Chirurgie Orthopédique et Traumatologique, Paris, France

Dr Paul Saunderson, Consultant, American Leprosy Missions (ALM), Greenville, South Carolina, USA

Ms Ellen Spotts, Meningitis and Special Pathogens Branch, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Dr John Stanford, Catriona Hargreaves Charitable Trust, Teston, Maidstone, United Kingdom

Prof. Kenzo Kiikuni, Sasakawa Memorial Health Foundation, Tokyo, Japan

Recommendations

1. Research

A. The group reviewed the status of implementation of the 2000 meeting recommendations on research and noted the following. Refer to 2000 meeting report (WHO/CDS/CPE/GBUI/2000.2)

Completed or in progress

- Website
- Genome sequencing has started at the Pasteur Institute, Paris, France
- Reference culture at the Institute of Tropical Medicine, Antwerp, Belgium
- Tissue repository at the Armed Forces Institute of Pathology, Washington DC, USA
- Human response to infection
- Anthropologic studies

Not yet done

- Establishment of collaborating centres
- Artificial ecosystems (*different* centres)
- Gene expression library
- Development of fingerprinting systems
- Identification of new foci (laboratory diagnostics facilities)
- Behaviour modifications
- Serial BCG therapy/prophylaxis
- Historical collection

Research priorities identified in 2001

Genomics - emphasized the practical use of genomic information to solve problems with *Buruli ulcer*.

- Identification of *Mycobacterium ulcerans* specific antigens that may have diagnostic potential and/or may be useful to identify components if an effective immune response - identification of HLA recognition motifs.
- Reference point for evaluation of strain differences by limited comparative genomic
 - genomic plasticity (IS, pgrs, ppe)
 - re-occurrence versus recidivism

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_30312

