



Bacterial, Waterborne and Emerging Infectious Diseases in North Africa and the Middle East: Opportunities for Collaboration

Nicosia, Cyprus | January 31- February 3, 2011

CONFERENCE AGENDA

Sunday, January 30, 2010

(For guests of the Conference Hotel only)

Monday, January 31, 2010

08:00- 19:00 Registration and Information Desk Open

08:00- 09:00 Registration

09:00- 09:20 Welcome and Opening

*F. Gray Handley, Associate Director for
International Research Affairs*

*National Institute of Allergy and Infectious Diseases (NIAID),
National Institutes of Health (NIH), Bethesda, Maryland, USA*

WORKSHOP I : The NIH Extramural Grant Process

09:20- 10:50 NIH Grant Types, Funding Opportunities and Resources

*Peter Jackson, Chief of AIDS Review Branch, Division of Extramural
Activities, NIAID, NIH, Bethesda, Maryland, USA*

Successful Electronic Grant Application Submission
and

The NIH Peer Review Process

*Annie Walker-Abbey, Scientific Review Officer, Microbiology Review
Branch, Division of Extramural Activities, NIAID, NIH, Bethesda,
Maryland, USA*

Strategies for Developing and Maintaining Scientific Collaborations

*Peter Jackson, Chief of AIDS Review Branch, Division of
Extramural Activities, NIAID, NIH, Bethesda, Maryland, USA*

SPONSORS AND CO-HOSTS



10:50- 11:20 **BREAK**

11:20- 12:00 NIAID Research Opportunities Related to Bacterial Waterborne and Emerging Infectious Diseases, from a Project Officer Perspective and NIAID /Division of Microbiology and Infectious Diseases (DMID) Research Opportunities - International Research in Infectious Diseases including AIDS Program (IRIDA)
Robert Hall, Program Officer, Division of Microbiology and Infectious Diseases, NIAID, NIH, Bethesda, Maryland, USA

12:00- 12:30 Additional Funding Opportunities: CRDF Global
Stacey Gomelsky, Program Manager, CRDF Global, Arlington, Virginia, USA

12:30- 13:00 Wrap-up, All Speakers
Questions and Answers

13:00- 14:30 **LUNCH**

WORKSHOP II: SURVEILLANCE OF WATERBORNE DISEASES

14:30- 17:30 Surveillance of Waterborne Diseases
Eric Mintz, Team Lead, Global Water Sanitation and Hygiene Epidemiology, Waterborne Diseases Prevention Branch, National Center for Emerging, Zoonotic, and Infectious Diseases (NCEZID), Centers for Disease Control and Prevention (HHS/CDC), Atlanta, Georgia, USA

Marta Guerra, Epidemiologist, Bacterial Special Pathogens Branch, NCEZID, HHS/CDC, Atlanta, Georgia, USA

- General background on surveillance
- Surveillance of waterborne diseases
- Waterborne disease surveillance in the USA
- Presentation of “case studies” - examples of detection and investigation of outbreaks of waterborne diseases of particular importance, including the cholera outbreak in Haiti, and how they were detected and investigated.
 - Cholera
 - Typhoid
 - Cryptosporidiosis
 - Leptospirosis

Ovine/Caprine Brucellosis: World Distribution and Control/Eradication Strategies in North Africa and the Middle East

Abdelali Benkirane, Professor, Agronomy and Veterinary Institute Hassan II, Rabat, Morocco

- Discussion

17:30- 19:00 Poster Viewing

20:00 Dinner and Discussion (at the Hotel)

Tuesday, February 1, 2011

08:00- 19:00 Registration and Information Desk Open

08:00- 09:00 Registration

09:00- 10:00 Welcome and Opening

F. Gray Handley, Associate Director for International Research Affairs
National Institute of Allergy and Infectious Diseases (NIAID),
National Institutes of Health (NIH), Bethesda, Maryland, USA

His Excellency Christos G. Patsalides,
Minister of Health of the Republic of Cyprus

Susan Delja, Economic/Commercial Officer
Embassy of the United States to the Republic of Cyprus

Konstantinos Makris, Assistant Professor
Cyprus International Institute for Environmental and Public Health
in association with Harvard School of Public Health
Cyprus University of Technology, Limassol, Cyprus

10:00- 10:30 **BREAK**

SESSION I: CHOLERA

Chair: Muhammad Zakaria
*Deputy Executive Director, Jinnah Postgraduate Medical Center,
Karachi, Pakistan*

Rapporteur: Afsar Ali

*Research Assistant Professor
University of Florida at Gainesville, Florida, USA*

- 10:30- 10:50 Phlogeography of Cholera: Seventh Pandemic Origin and Spread
*Judith Johnson, Research Professor of Pathology, University of
Florida Emerging Pathogens Institute, Gainesville, Florida, USA*
- 10:50- 11:10 Are Outbreaks of Cholera in Africa Related to High Impact Weather
Events?
*Guillaume Constantin de Magny, Research Associate, University of
Maryland Institutes for Advanced Computer Studies, College Park,
Maryland, USA*
- 11:10- 11:30 How Does *Vibrio cholerae* Get Dispersed Between Water Bodies?
*Malka Halpern, Senior Lecturer and Researcher, Department of
Biology, University of Haifa - Oranim, Tivon, Israel*
- 11:30- 11:50 Cholera Outbreaks in Sudan during 2005- 2006: Epidemiological and
Bacteriological Profile of Cases
*Mubarak Mustafa El Karsany, Director, National Public Health
Laboratory, Federal Ministry of Health, Khartoum, Sudan*
- 11:50- 12:10 Molecular Characterization of *Vibrio cholerae* O1 El Tor Isolates from
Iraq, 2000-2008
*John Klerna, Laboratory Chief, International Emerging Infectious
Disease Program, US Center for Disease Control and Prevention,
Beijing, China*

12:10- 13:45 **LUNCH**

SESSION I: CHOLERA Continued

Chair: Saif AlGhais Associate Professor, United Arab Emirates (UAE) University and
*Executive Director for Environment Protection and Development Authority, Ras
Al Khaimah Government, UAE*

Rapporteur: Chris Waters

Assistant Professor, Michigan State University, East Lansing, Michigan, USA

- 13:45- 14:05 Emergence of Highly Virulent Strains of *Vibrio vulnificus* Isolated from
Tilapia in Bangladesh
*Afsar Ali, Research Assistant Professor, University of Florida,
Gainesville, Florida, USA*

- 14:05- 14:25 First Investigation of Pathogen *V. cholerae* in Ballast Water of Oil Loading Harbor Skhira -Trapsa (Tunisia – Central Mediterranean Sea)
Monia El Bour, Researcher, Laboratoire de Bactériologie– Pathologie, National Institute of Marine Sciences and Technologies, Salammbô, Tunisia
- 14:25- 14:45 Molecular Mechanisms of Non-coding Bacterial Small RNAs that Control Virulence and Biofilms in the *Vibrio cholerae* Quorum Sensing System
Brian Hammer, Assistant Professor, Georgia Institute of Technology, Atlanta, Georgia, USA
- 14:45- 15:05 Growth in a Biofilm Induces a Hyperinfectious Phenotype in *Vibrio cholerae*
Rita Tamayo, Assistant Professor, Department of Microbiology and Immunology, University of North Carolina School of Medicine, Chapel Hill, North Carolina, USA
- 15:05- 15:40 DISCUSSION
- 15:40- 16:10 **BREAK**

WORKSHOP III- BIOSAFETY

- 16:10- 16:20 Welcome and Introductions
- 16:20- 16:45 BBIC - Developing Biosafety and Biosecurity Strategies for the MENA Region
Nisreen Al-Hmoud, Assistant Professor of Environmental Management, Princess Sumaya University for Technology, Amman, Jordan
- 16:45- 17:15 Biosafety Considerations for Collaborations with U.S. Investigators: An Overview of NAMRU-3 Collaborations
Hanan El-Mohammady, Medical Research Scientist and Biosafety Officer, U.S. Naval Medical Research Unit No. 3 (NAMRU-3), Cairo, Egypt
- 17:15-17:45 The MENA Region Network of High Containment Labs - Capabilities / special considerations / training opportunities
John Klena, Laboratory Chief, International Emerging Infections Program (IEIP), Centers for Disease Control and Prevention (HHS/CDC) Laboratories, Beijing, China

17:45-18:30 The Impact of Biosafety on Planning and Construction of High Containment Facilities and SOP compatibility
Gary Zackowitz, Program Officer/Architect, Office of Biodefense Research Affairs, NIAID, NIH, Bethesda, Maryland, USA

18:30- 19:50 DISCUSSION

Wednesday, February 2, 2010

08:00- 19:00 Registration and Information Desk

08:00- 09:00 Registration

LEPTOSPIROSIS LABORATORY and POLICY ISSUES

08:30- 08:45 Leptospirosis: Diagnostics/ Estimating the Burden Of Disease
Gholamreza Abdollahpour, Associate Professor, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

08:45- 9:00 Leptospirosis in Egypt: Past, Present, and Future Perspectives
Azza El Sherbini, Consultant, Hepatology and Infectious Diseases, Tanta Fever Hospital Research Unit, Ministry of Health of Egypt, Tanta, Egypt

SESSION II: LEPTOSPIROSIS

Chair: Brian Stevenson

Professor Department of Microbiology, Immunology and Molecular Genetics, University of Kentucky College of Medicine, Lexington, Kentucky, USA

Rapporteur: Rudy Hartskeerl

Research Coordinator, Department of Biomedical Research, Royal Tropical Institute (KIT), Amsterdam, the Netherlands

09:00- 09:20 Host, Pathogen and Environmental Factors that Contribute to the Clinical Outcome of Leptospira Infection of Humans
Joseph Vinetz, Professor of Medicine, Division of Infectious Diseases, Department of Medicine, University of California at San Diego (UCSD), School of Medicine, San Diego, California, USA

- 09:20- 09:40 The Prevalence of Leptospirosis in Patients Within End Stage Renal Failure in Sudan
Isam El Jalii, Associate Professor, King Faisal University, Al-Hassa, Saudi Arabia
- 09:40- 10:00 A Six Year Sero-Bacteriological Study of Leptospirosis in 14 Provinces of Iran
Gholamreza Abdollahpour, Associate Professor, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran
- 10:00- 10:20 A Proteomic Approach to Elucidate Host-Pathogen Interactions During Persistent Transmission of Leptospire in Clinically Asymptomatic Reservoir Hosts
Jarlath Nally, Lecturer, School of Agriculture, Food, Science & Veterinary Medicine, University College Dublin, Dublin, Ireland
- 10:20- 10:40 **BREAK**

SESSION II: LEPTOSPIROSIS

Chair: Gholamreza Abdollahpour

Associate Professor, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

Rapporteur: Joseph Vinetz

Professor of Medicine, Division of Infectious Diseases, Department of Medicine, UCSD School of Medicine, San Diego, California, USA

- 10:40- 11:00 Seroprevalence of Leptospiral Infection Among Veterinary Students in the Veterinary Faculty of Shahid Chamran University of Ahvaz, Iran
Mohammad Rahim Haji Hajikolaie, Academic Staff, Department of Clinical Sciences, Faculty of Veterinary Medicine, Shahid Chamran University of Ahvaz, Golestan, Ahvaz, Khouzestan, Iran

- 11:00 – 11:20 Innate Immune Response to Pathogenic Leptospira is Dependent on Both TLR2 and TLR4 Signaling in Human Whole Blood
Rudy Hartskeerl, Research Coordinator, Department of Biomedical Research, Royal Tropical Institute (KIT), Amsterdam, the Netherlands

- 11:20 – 11:40 Leptospira interrogans uveitis-associated proteins
Brian Stevenson, Professor Department of Microbiology, Immunology And Molecular Genetics, University of Kentucky College of Medicine, Lexington, Kentucky, USA

- 11:40- 12:30 **DISCUSSION**

12:30- 14:00 **LUNCH**

SESSION III: TYPHOID

Chair: Maha Mohamed Gaafar

Assistant Professor, Department of Clinical Pathology, University School of Medicine, Cairo, Egypt

Rapporteur: John Klena

Laboratory Chief, International Emerging Infectious Disease Program, U.S. Center for Disease Control and Prevention, Beijing, China

14:00- 14:20 Antibiotic Resistance Patterns of Salmonella and Escherichia Coli in the Groundwater of Cyprus

Konstantinos Makris, Assistant Professor, Cyprus International Institute for Environmental and Public Health in association with the Harvard School of Public Health, Cyprus University of Technology, Limassol, Cyprus

14:20- 14:40 Early Diagnosis and Molecular Epidemiology of Typhoid Fever in Indonesia

Mochammad Hatta, Professor, Department of Clinical Microbiology, Faculty of Medicine, Hasanuddin University, Makassar, South Sulawesi, Indonesia

14:40- 15:00 Outbreak of Paratyphi A Infection in Israeli Travelers to Nepal

Eli Schwartz, Professor of Medicine, Tel Aviv University, and Director of Center of Travel and Tropical Medicine, Sheba Medical Center, Tel Hashomer, Israel

15:00- 15:20 Low-Dose Azithromycin in Comparison to Ceftriaxone for Treatment of Uncomplicated Typhoid Fever

Isabelle Nakhla, Medical Research Scientist, U.S. Naval Medical Research Unit No. 3 (NAMRU-3), Cairo, Egypt

15:20- 15:40 **BREAK**

SESSION III: TYPHOID Continued

Chair: Eli Schwartz

Professor of Medicine, Tel Aviv University, and Director of Center of Travel and Tropical Medicine, Sheba Medical Center, Tel Hashomer, Israel

Rapporteur: Isabelle Nakhla

Medical Research Scientist, U.S. Naval Medical Research Unit No. 3 (NAMRU-3) Cairo, Egypt

- 15:40- 16:00 An Oral Vaccine Aimed at Simultaneous Protection Against Typhoid/Paratyphoid Fevers and Shigellosis
Dennis Kopecko, Chief, Laboratory of Enteric and Sexually Transmitted Diseases, Center for Biologics, Evaluation, and Research, U.S. Food and Drug Administration (FDA/HHS), Washington D.C., USA
- 16:00- 16:20 Detection of β -lactamases Production in Human and Avian Salmonella from Egypt and Algeria
Hakim Abdelhakim Aouf, Laboratory of Molecular Cellular Biology, University of Science and Technology, Algiers, Algeria
- 16:00- 16:20 Bacterial Cell-to-Cell-Communication: Implications for Pathogenesis and Novel Therapeutics
Brian Hammer, Assistant Professor, Georgia Institute of Technology, Atlanta, Georgia, USA
- 16:20- 16:40 Salmonella enterica serovar Typhi Infections in Northern Africa and the Middle East: Antibiotic Resistance and Genetic Characterization of Strains
John Klena, Laboratory Chief, International Emerging Infectious Disease Program, US Center for Disease Control and Prevention, Beijing, China
- 16:40- 17:00 High Rates of Antimicrobial Resistance Among Clinical Isolates of Non Typhoidal Salmonella in a Pediatric Teaching Hospital in Egypt
Maha Mohamed Gaafar, Assistant Professor, Department of Clinical Pathology, University School of Medicine, Cairo, Egypt
- 17:00- 17:30 DISCUSSION

THURSDAY, February 3, 2011

SESSION IV: BRUCELLOSIS

Chair: Gary Splitter

Professor, Animal Health and Biomedical Sciences School of Veterinary Medicine, University of Wisconsin at Madison, Madison, Wisconsin, USA

Rapporteur: Thomas Ficht

Professor, College of Veterinary Medicine and Biological Sciences, Texas A & M University, College Station, Texas, USA

- 09:00- 09:20 Laboratory Investigation of Human Brucellosis and the Search of Discriminative Markers
George Araj, Professor and Director of Clinical Microbiology, American University of Beirut Medical Center, Lebanon
- 09:20- 09:40 Comparison of the Serological Tests Used for the Laboratory Diagnosis of Brucellosis
Hanan El Mohammady, Medical Research Scientist, U.S Naval Medical Research Unit No. 3 (NAMRU-3), Cairo, Egypt
- 09:40- 10:00 Genetic Relationship of Brucella Strains Isolated from the African Continent with Global Isolates Based on Extensive MultiloSequence Analysis
Adrian Whatmore, FAO/WHO Collaborating Centre for Brucellosis OIE Brucellosis Reference Centre, Veterinary Laboratories Agency Addlestone, UK
- 10:00- 10:20 Brucella Genome Analysis: from Physical Maps to Multiple Complete Genomes
David O'Callaghan, Research Director, INSERM, University de Montpellier, Nimes, France
- 10:20- 10:40 BREAK

SESSION IV: BRUCELOSIS Continued

Chair: George Araj

Professor and Director of Clinical Microbiology, American University of Beirut, Beirut, Lebanon

Rapporteur: Adrian Whatmore

FAO/WHO Collaborating Centre for Brucellosis, OIE Brucellosis Reference Centre, Veterinary Laboratories, Addlestone, UK

- 10:40- 11:00 Childhood Brucellosis in Jordan: Prevalence and Analysis of Risk Factors
Ahmad Al-Majali, Dean, Faculty of Veterinary Medicine, Jordan University of Science and Technology (JUST), Faculty of Veterinary Medicine, Irbid, Jordan

- 11:00- 11:20 *B.melitensis*: Using Basic Science to Develop Vaccines
*Gary Splitter, Professor Animal Health and Biomedical Sciences,
School of Veterinary Medicine University of Wisconsin, Madison,
Wisconsin, USA*
- 11:20- 11:40 Adjuvant Effects of Particle Delivery Systems
*Allison C. Rice-Ficht, Professor, Department of Molecular and
Cellular Medicine, and Director, Center for Microencapsulation
and Drug Delivery, Texas A & M University, College Station,
Texas, USA*
- 11:40- 12:00 Particle Delivery Systems Enhance the Efficacy of Brucellosis
Vaccines
*Thomas Ficht, Professor, College of Veterinary Medicine and
Biological Sciences, Texas A & M University, College Station,
Texas, USA*
- 12:00- 12:20 Vaccination of Mice with Gamma-Irradiated Brucella Neotomae and its
Recombinant Strains Induces Protection Against Virulent *B. abortus*, *B.
melitensis*, and *B.suis* Challenge
*Ramesh Vemulapalli, Microbiology and Immunology Section Head,
Associate Professor of Veterinary Immunology/Microbiology
School of Veterinary Medicine Purdue University, West Lafayette,
Indiana, USA*
- 12:20- 12:45 DISCUSSION
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- 12:45- 13:00 CRDF Global Collaboration Grants
*Stacey Gamelsky, Senior Program Manager, CRDF Global,
Arlington, Virginia, USA*
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- 13:00- 13:15 Closing Remarks and Adjourn
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- 13:15 - 14:30 **LUNCH**