Endemic and Emerging Infectious Diseases of Priority in the Middle East and North Africa
Research Opportunities and Biosafety in a Changing Environment
June 18 - 21, 2012
Koç University-School of Medicine
Istanbul, Turkey

In partnership with the U.S. Department of State, Biosecurity Engagement Program (DOS/BEP), UK Global Partnership Programme, Defence Science and Technology Laboratory (Dstl), Porton Down/UK, and Koç University, Istanbul.

This interdisciplinary research conference is supported by the National Institute of Allergy and Infectious Diseases of the National Institutes of Health (NIH/NIAID), Office of Disease Prevention, Office of the Director of the National Institutes of Health (NIH/ODP), United States Department of Health and Human Services; the United States Department of State, Biosecurity Engagement Program (DOS/BEP); and the Defence Science and Technology Laboratory (Dstl), Porton Down/UK on behalf of the UK Global Partnership Programme. The Conference in-country host institution is Koç University in Istanbul. Scientists from the United States, Europe and the Middle East and North Africa will discuss research opportunities related to emerging and re-emerging infectious diseases of priority to the region, including zoonotic diseases and the environmental factors that influence the spread of relevant vectors. Disease focus areas for this conference include West Nile fever, Rift Valley fever, sandfly fever, Crimean-Congo hemorrhagic fever (CCHF), Alkhumra (Alkhurma) hemorrhagic fever, H5N1 avian influenza, and Q fever (caused by Coxiella burnetii).
CONFERENCE AGENDA

MONDAY, 18 JUNE

Note: All events on Monday, June 18, 2012 will take place on the MAIN CAMPUS of Koç University in Istanbul, Rumelifeneri Yolu 34450 Sariyer Istanbul Turkey. Telephone +90 212 338 1000 (~ 45-60 minutes’ drive from Point Hotel Taksim)

0800 Shuttle will depart from the Lobby Entrance of the Point Hotel Taksim promptly at 8:00 A.M.
0900 - 0930 Registration for those who did not register at the hotel on Sunday, June 17, 2012.

PRE-CONFERENCE WORKSHOP ON FUNDING OPPORTUNITIES

0930 - 0945 Welcome and Opening
   James Meegan, Director of the Office of Global Research, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Bethesda, Maryland, USA
   Martha Jane Coury, Regional Program Officer for Europe, the Middle East, and North Africa, Office of Global Research, NIAID, NIH, Bethesda, Maryland, USA

0945 - 1030 Establishing a Sustainable Research Portfolio and Grantsmanship: The NIH Application Process
   Tracy Shahan, Division of Extramural Activities, NIAID, NIH, Bethesda, Maryland, USA

1030 - 1100 BREAK

1100 - 1130 NIAID Research Opportunities Related to Vector Biology, Emerging and Re-emerging Viral Diseases from the Program Officer’s Perspective
   Patricia Repik, Program Officer for Emerging Viral Diseases, Virology Branch, Division of Microbiology and Infectious Diseases, NIAID, NIH, Bethesda, Maryland, USA
   James Meegan, Director of the Office of Global Research, NIAID, NIH, Bethesda, Maryland, USA

1130 - 1145 Additional Funding Opportunities: U.S. Civilian Research and Development Foundation, Global (CRDFG)
   Martha Jane Coury, Regional Program Officer for Europe, the Middle East, and North Africa, Office of Global Research, NIAID, NIH, Bethesda, Maryland, USA

1145 - 1200 Wrap-Up/Questions/Answers

1200 - 1300 LUNCH
CONFERENCE OPENING

1300 - 1345  Welcome and Opening

Hugh D. Auchincloss, Jr., M.D., Principal Deputy Director, NIAID, NIH, Bethesda, Maryland, USA

Ali İhsan Dokucu, M.D., Director of Public Health, Health Directorate of Istanbul, Istanbul, Turkey

Marie Ricciardone, Ph.D., Embassy of the United States of America in Turkey, Ankara, Turkey

Umran İnan, Ph.D., Rector, Koç University, Istanbul, Turkey

1345 - 1400  BREAK

SESSION I: CRIMEAN-CONGO HEMORRHAGIC FEVER (CCHF)

Chair: Önder Ergönül
Rapporteur: Mike Bray

1400 - 1430  PLENARY SESSION: Overview of Crimean-Congo Hemorrhagic Fever

Önder Ergönül, Professor and Chair of the Department of Infectious Diseases and Clinical Microbiology, Koç University School of Medicine, Istanbul, Turkey; General Secretary, Turkish Society of Clinical Microbiology and Infectious Diseases

1430 - 1450  Research on Crimean-Congo Hemorrhagic Fever Virus at the Health Protection Agency, United Kingdom

Stuart Dowell, Project Team Leader, Health Protection Agency, Porton Down, Salisbury, Wiltshire, England

1450 - 1510  Establishment of an In Vivo Tick Feeding Assay to Study the Transmission of Crimean-Congo Hemorrhagic Fever Virus

Aysen Gargili, Research Scientist, University of Texas Medical Branch, Galveston, Texas, USA

1510 - 1545  BREAK

1540 – 1605  Crimean Congo Hemorrhagic Fever Outbreak in Northern Iraq

Karim A.K.Muftin AL-Zadawi, Specialist Physician in Community Medicine, Zoonotic Disease Section, Centers for Disease Control (CDC), Ministry of Health, Baghdad, Iraq

1605 - 1625  Recovery of Crimean Congo Hemorrhagic Fever Virus Entirely From Complementary DNA

Eric Bergeron, Senior Research Scientist, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

1625 - 1645  Application of Molecular-Based Techniques for Rapid Detection and Characterization of Crimean Congo Hemorrhagic Fever Virus Strains Recovered During Disease Outbreaks in Sudan

Imadeldin Aradaib, Professor of Molecular Medicine, University of Khartoum, Khartoum, North, Sudan
SESSION I: CRIMEAN-CONGO HEMORRHAGIC FEVER (CCHF)
1645 - 1715 Wrap-Up/Questions/Answers
1730 Welcome Reception on the Main Campus of Koç University, followed by shuttle ride back to the Point Hotel Taksim

TUESDAY, 19 JUNE
Note: All scientific sessions on Tuesday, June 19, Wednesday, June 20 and Thursday, June 21 will take place at Koc University School of Nursing (Taksim Area); No Guzelbahce Street. 20, Nisantasi 34365 Istanbul; Phone: (90) 212 311 2601; Fax: (90) 212 311 2602

Posters can be put up at the American Hospital adjoining the School of Nursing on Tuesday, June 19 and left in place until the end of the conference.

0800 Shuttle will depart from the Lobby Entrance of the Point Hotel Taksim promptly at 8:00 A.M.

SESSION II: H5N1 PANDEMIC INFLUENZA
Chair: Ian Brown
Co- Rapporteurs: Ghazi Kayali
Steve Whitehead

0900 - 0930 PLENARY SESSION: Continuing Threat of H5N1 Highly-Pathogenic Avian Influenza to the Middle East and North Africa
Ian Brown, Director of International Reference Laboratory for Avian Influenza, Animal Health and Veterinary Laboratories Agency-Weybridge, Surrey, England

0930 - 0950 Avian Influenza in Egypt 2006-2012
Emad Mohareb, Head, Viral and Zoonotic Diseases Research Program, U.S. Naval Research Unit, No.3 (NAMRU-3), Cairo, Egypt

0950 - 1010 Under Siege: The Endemicity of H5N1 in Egypt
Ghazi Kayali, Research Associate, St. Jude Children’s Research Hospital, Memphis, Tennessee, USA

1010 - 1030 H5N1 Avian Influenza in Childgen
Ahmet Faik Oner, Yuzuncu Yil University Medical Faculty, Van, Turkey

1030 - 1045 BREAK

1045 - 1105 Development of Live Attenuated Vaccines Against H5N1 Avian Influenza
Steve Whitehead, Staff Scientist, NIAID, NIH, Bethesda, Maryland, USA

1105 - 1125 Increased Pathogenicity of a 2009 Pandemic H1N1 Influenza Reassortant Virus Containing an H5N1 Hemagglutinin
Stacey Schultz-Cherry, Associate Member, St. Jude Children’s Research Hospital, Memphis, Tennessee, USA

SESSION II: H5N1 PANDEMIC INFLUENZA
1125 - 1145 Multi-Subtype Pandemic Influenza VLP Vaccine
  
  Peter Pushko, President and Chief Scientific Officer, Medigen Incorporated, Frederick, Maryland, USA

1145 – 1215 Wrap-Up/Questions/Answers

1215 – 1315 LUNCH

SESSION III: ALKHAMRA (ALKHURMA) HEMORRHAGIC FEVER

Chair: Pierre Rollin
Rapporteur: Patricia Repik

1315 - 1345 Alkhurma Hemorrhagic Fever Virus and Disease – A Short Review
  Pierre Rollin, Deputy Branch Chief, Viral Special Pathogens Branch, United States Centers for Disease Control and Prevention, Atlanta, Georgia, USA

1345 - 1415 Development of a Small Animal Model for Alkhurma Hemorrhagic Fever
  Dennis Bente, Assistant Professor, University of Texas Medical Branch, Galveston, Texas, USA

1415 - 1445 Wrap-Up/Questions/Answers

SESSION IV: RIFT VALLEY FEVER

Chair: James Meegan
Rapporteur: Christina Spiropoulou

1445 - 1515 PLENARY SESSION: Rift Valley Fever: New Insights on an Emerging Foe
  Brian Bird, Viral Special Pathogens Branch, United States Centers for Disease Control and Prevention, Atlanta, Georgia, USA

1515 - 1535 The Changing Epidemiology of Rift Valley Fever Outbreaks in Sudan, 2007-2011: An Old Foe in New Clothes
  Mubarak Mustafa Elkarsany, Assistant Professor, College of Medical Lab Sciences – Karary University/ National Health Laboratory, Umdurman, Khartoum State, Sudan.

1535 - 1550 BREAK

1550 - 1610 Modeling different disease presentations of human inhalational Rift Valley Fever using inbred rats
  Amy Hartman, University of Pittsburgh Regional Biocontainment Laboratory, Pittsburgh, Pennsylvania, USA

SESSION IV: RIFT VALLEY FEVER

1610 - 1630 Efficacy of Three Candidate Rift Valley Fever Vaccines in Sheep
  Rob Moormann, Professor, Central Veterinary Institute, Lelystad, The Netherlands

1630 - 1650 MP-12: A Rift Valley Fever Vaccine Suitable for Human and Animal Use
  George Bettinger, Research Associate II, Department of Pathology, University of Texas Medical Branch, Galveston, Texas, USA
1650 - 1720  Wrap-Up/Questions/Answers
1720 - 1830  Poster Presentation (Poster presenters should go to their posters)
1900  Shuttle bus will leave to take participants to the: 
**Working Dinner- Boat Trip on the Bosphorus**
Hosted for Participants by Koç University

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**WEDNESDAY, 20 JUNE**

0800  Shuttle will depart from the Lobby Entrance of the Point Hotel Taksim **promptly at 8:00 A.M.**

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**SESSION V: VECTOR BIOLOGY / VECTOR CONTROL**
Chair: John Beier  
Co-Rapporteurs: Patricia Repik, Yvonne-Marie Linton

0900 - 0930  PLENARY SESSION: Environmental Changes and Mosquito-Borne Diseases in Arid Environments  
**John Beier,** Professor, Department of Epidemiology and Public Health and Professor, Leonard and Jayne Abess Center for Ecosystem Science and Policy, University of Miami Miller School of Medicine, Miami, Florida, USA

0930 - 0950  Surveillance and Monitoring of Vectors of Diseases in Egypt  
**Mohamed Soliman,** Director, Research Institute of Medical Entomology, Dokki, Giza, Egypt

0950 - 1010  Elucidation of Potential Insensitivity Resistance in Sand Flies (Diptera: Psychodidae: Phlebotominae) to Chemical Pesticides  
**Scott Bernhardt,** Assistant Professor, Department of Biology, Utah State University, Logan, Utah, USA

1010 - 1030  BREAK

1030 - 1050  Microbiome Based Applications for Control of Pathogen Transmission in Mosquito, Sand Fly, and Tick Disease Vectors  
**Serap Aksoy,** Professor, Yale School of Public Health, New Haven, Connecticut, USA

1050 - 1110  Mosquito Barcoding: A Modern Approach to Vector Identification for Disease Control  
**Yvonne-Marie Linton,** NRC Research Associate/Research Entomologist, Walter Reed Army Institute of Research, Silver Spring, Maryland, USA

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**SESSION V: VECTOR BIOLOGY / VECTOR CONTROL**

1110 - 1130  Critical Review of the Rift Valley Fever Vector Potential of Ochlerotatus Caspius (Pallas)  
**Adel Gad,** Professor, Ain Shams University, Cairo, Egypt

1130 - 1200  Wrap-Up/Questions/Answers
1200 - 1300  LUNCH

SESSION VI: Q FEVER
Chair: Robert Heinzen
Rapporteur: Brian Bird

1300 - 1330  PLENARY SESSION: Recent Advances in Research of the Q Fever Bacterium, Coxiella burnetii
Robert Heinzen, Chief, Coxiella Pathogenesis Section, Laboratory of Intracellular Parasites, Rocky Mountain Laboratories, NIAID, NIH, Hamilton, Montana, USA

1330 - 1350  An Overview of Q Fever in Iran
Ehsan Mostafavi, Head of the Department of Epidemiology, Pasteur Institute of Iran, Tehran, Iran

1350 - 1410  Characteristics of Q Fever Endocarditis in Sfax, South of Tunisia
Abir Znazen, Microbiologist, Faculty of Medicine Sfax, Sfax, Tunisia

1410 - 1440  Wrap-Up/Questions/Answers

SESSION VII: WORKSHOP: Biosafety and Biosecurity in Times of Crisis
Chair: James Meegan
Rapporteur: Mike Bray

Note: This is a highly interactive workshop and participants are encouraged to share their experiences related to biosafety and biosecurity in times of crisis

1440 - 1540  Biosafety in Times of Crisis
James Blaine, Deputy Director, Division of Select Agents and Toxins, Office of Public Health Preparedness and Response, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

1540 - 1600  Biosafety and Biosecurity in Times of Crisis: The Field Perspective
LCDR Jamal Dejli, Laboratory Director, Navy Environmental & Preventive Medicine Unit No. 2, Norfolk, Virginia, USA

1600 - 1630  Wrap-Up/Questions/Answers
1630 - 1645  BREAK

1645 - 1700  Special Session: Collaborating with MENA scientists on CCHF, West Nile, Rift Valley Fever: One Institute’s Perspective
Martin H. Groschup, Head of Institute for Novel and Emerging Infectious Diseases, Friedrich-Loeffler-Institut (FLI) Greifswald-Insel Riems, Germany

SESSION VIII: SAND FLY FEVER AND OTHER BUNYAVIRAL DISEASES
Chair: Elys Zhioua
Rapporteur: Nabil Haddad
1700 - 1730 PLENARY SESSION: Virological Evidence for the Widespread Dispersion of Toscana Virus in the Mediterranean Area and Recent Discovery of New Phleboviruses

*Remi Charrel*, Group Leader, Aix-Marseille University, Marseille, France

1730 - 1750 Updates on Medically-Important Phleboviruses in Turkey

*Koray Ergunay*, Associate Professor, Hacettepe University Faculty of Medicine Department of Medical Microbiology Virology Unit, Sihhiye Ankara, Turkey

1750 - 1805 Wrap-Up/Questions/Answers

1805 - 1930 Poster Presentation

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**THURSDAY, 21 JUNE**

0800 Shuttle will depart from the Lobby Entrance of the Point Hotel Taksim **promptly at 8:00 A.M.**

**SESSION VIII: SAND FLY FEVER AND OTHER BUNYAVIRAL DISEASES, Continued**

Chair: *Patricia Repik*

Rapporteur: *Scott Bernhardt*

0900 - 0930 PLENARY SESSION: Early Warning of Critical Transitions in Emerging Infectious Diseases

*John Drake*, Associate Professor, Odum School of Ecology and Oxford University, Oxford UK

0930 - 0950 A Retrospective Study to Define Viral and Bacterial Etiologies Causing Acute Febrile Illness in Libya

*Abdulaziz Zorgani* Faculty, Medical Microbiology and Immunology, University of Tripoli, Tripoli, Libya, and Department of Medical Microbiology, University of Edinburgh Medical School, Edinburgh, Scotland


*Elyes Zhioua*, Professor, Institut Pasteur de Tunis, Tunis, Tunisia

**SESSION VIII: SAND FLY FEVER AND OTHER BUNYAVIRAL DISEASES, Continued**

1010 - 1030 Complete Genome Characterization of Old World Phlebovirus

*Gustavo Palacios*, Associate Professor, George Mason University, Manassas, Virginia, USA

1030 - 1045 BREAK

1045 - 1105 First Detection of Toscana Virus RNA from Sand Flies (*Phlebotomus perniciosus*), Naturally Infected in Morocco

*Meryem Lemrani*, Researcher, Institut Pasteur du Maroc, Casablanca, Morocco

1105 - 1125 Sand Fly Fever in Lebanon: Serological Study and Viral Characterization

*Nabil Haddad*, Assistant Professor, Faculty of Public Health - Lebanese University, Metn, Lebanon
1125 - 1150   Wrap-Up/Questions/Answers
1150 - 1250   LUNCH

1250 - 1310   Special Session: West Nile Disease in the Mediterranean Basin: Activities and Results of Collaboration Between the Istituto G. Caporale Teramo (Italy) and Middle East and North African Countries
              *Paolo Calistri*, Head of the Epidemiology Unit, National Reference Center for Veterinary Epidemiology, Istituto "G. Caporale", Teramo, Italy

**SESSION IX: WEST NILE FEVER**

Chair: Laura Kramer
Co-Rapporteurs: Steve Whitehead, Anna Durbin

1310 – 1340   PLENARY SESSION: Insights into Flavivirus Evolution and Adaptation from Experimental Studies
              *Laura Kramer*, Director Arbovirus Laboratory and Professor, Biomedical Sciences, Wadsworth Center and SUNY Albany School of Public Health, Albany, New York, USA

1340 – 1400   West Nile Virus Infection: Risk of Infection in the Region,
              *Sema Alp Cavus*, Dokuz Eylul University Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology, Izmir, Turkey

1400 - 1420   Endemic and Emerging Vector-borne and Zoonotic Pathogens among Abattoir Workers in Djibouti
              *Katherine Chisholm Horton*, Regional Epidemiologist, U.S. Centers for Disease Control and Prevention's Global Disease Detection Regional Center at U.S. Naval Medical Research Unit No. 3, Cairo, Egypt

1420 - 1440   Safety and Immunogenicity of rWN/DEN4Δ30, a Recombinant Live Attenuated Chimeric Vaccine for the Prevention of WNV in Humans
              *Anna Durbin*, Associate Professor, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA

1440 - 1515   BREAK

1515 - 1545   Wrap-Up/Questions/Answers
1545 - 1600   Wrap-Up/CRDF Collaboration Grants

1600   VISIT TO KEY LABORATORIES IN ISTANBUL- TO BE CONFIRMED