LEISHMANIASIS: COLLABORATIVE RESEARCH OPPORTUNITIES IN NORTH AFRICA AND THE MIDDLE EAST

This interdisciplinary research conference, supported by the National Institute of Allergy and Infectious Diseases of the National Institutes of Health (NIH/NIAID), United States Department of Health and Human Services, will bring together regional and international scientists to discuss research opportunities on the vector biology, parasitology, immunology, epidemiology, animal reservoirs, clinical manifestations, treatment, and prevention of leishmaniasis in North Africa and the Middle East.

AGENDA

SUNDAY, 21 JUNE

14:00 – 17:00 Registration and Information Desk Open
* For guests of the Golden Tulip only

MONDAY, 22 JUNE

INSTITUT PASTEUR TUNIS MINI-SYMPOSIUM and LABORATORY VISITS

07:00 Registration and Information Desk Open at the Golden Tulip Hotel
(Note: a bus will depart from the Golden Tulip Hotel entrance at 08:15 a.m.)

09:30 – 12:30 Institut Pasteur de Tunis Visit and Tour of the Laboratories
Dr. Hechmi Louzir, Director
Institut Pasteur Laboratories /Leishmaniasis Work Group Team Leaders
- Dr. Afif Ben Salah (Epidemiology)
- Dr. Ikram Guizani (Molecular Tools, Population Genetics)
- Dr. Hechmi Louzir (Immunology)
- Dr. Aida Bouratbine (Diagnostic and Epidemiology)
- Dr. Lamia Guizani (Host-pathogen Interaction, Innate Immunity)
- Dr. Ali Bouatour (Entomology)
- Dr. Alia ben Kahla (Bioinformatics and Mathematical Modeling)

Participants will receive an overview of Institut Pasteur de Tunis from Dr. Hechmi Louzir, Director and a brief overview from each Leishmaniasis work group team leader followed by a visit to their respective laboratories.

12:30 – 13:30 LUNCH
WORKSHOP ON FUNDING OPPORTUNITIES and CDC RESOURCES

LARGE AUDITORIUM, INSTITUT PASTEUR

13:30 – 14:00 Welcome and Overview of NIH and NIAID Global Research
Steven T. Smith, Director of the Office of Global Research, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Bethesda, Maryland, USA

14:00 – 14:30 HHS/Centers for Disease Control and Prevention Activities in the Middle East and North Africa Region
Barbara Herwaldt, U.S. Centers for Disease Control and Prevention, Division of Parasitology, Atlanta, Georgia, USA

14:30 – 15:00 NIAID Research Opportunities Related to Leishmaniasis
Adriana Costero, Program Officer, Division of Microbiology and Infectious Diseases, NIAID, NIH, Bethesda, Maryland, USA

15:00 – 16:00 Funding Opportunities
Milton Hernandez, Division of Extramural Activities, NIAID, NIH, Bethesda, Maryland, USA
Where to Look:
- NIH Application: Submission Process and Resources
- The Process:
- Priority Score
- New Investigators Guidance and Resources

16:00 – 16:30 Fogarty International Center (FIC)
Barbara Sina, Division of Training and Research, Fogarty International Center, NIH, Bethesda, Maryland, USA

16:30 – 17:00 The Tropical Medicine Research Center of Tunis: Perspectives of an NIH/NIAID Grantee
Afif Ben Salah, Head of Epidemiology, Institut Pasteur de Tunis

17:00 – 17:30 Additional Funding Opportunities: U.S. Civilian Research and Development Foundation (CRDF)
Stuart Politi, Senior Program Manager, CRDF, Arlington, Virginia, USA

17:30 – 18:30 Wrap-up All Speakers
Questions and Answers

18:30 Bus will depart for Golden Tulip Hotel.
TUESDAY, 23 JUNE

THREE DAY SCIENTIFIC MEETING

GOLDEN TULIP CARTHAGE HOTEL

08:00 – 19:00  Registration and Information Desk Open
08:00 – 09:00  Registration
09:00 – 10:00  Welcome and Opening
Steven Smith, Director, Office of Global Research, NIH, NIAID
Hechmi Lauzir, Director, Institut Pasteur de Tunis
WHO Representative
Robert F. Godec, U.S. Ambassador to Tunisia
His Excellency Mondher Zenaidi, Minister of Public Health of Tunisia

10:00 – 10:30  Break
10:30 – 11:00  Plenary Session
Advances in Our Understanding of Leishmaniasis as a Vector-Borne Disease
David Sacks, Chief, Intracellular Parasite Biology Section
Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, U.S. Department of Health and Human Services

EPIDEMIOLOGY OF LEISHMANIASIS - I

CHAIR: Barbara Herwaldt, U.S. Centers for Disease Control and Prevention, Atlanta, Georgia, USA
RAPPORTEUR: Leonard Munstermann, Yale University, School of Public Health, New Haven, Connecticut, USA

11:00 – 11:15  Cutaneous Leishmaniasis in Tunisia: Lessons and New Challenges
Afif Ben-Salah, Team Leader for the Epidemiology of Leishmaniasis, Institut Pasteur de Tunis, Tunis, Tunisia

11:15 – 11:30  Current Epidemic of Cutaneous Leishmaniasis in a New Focus along the “Silk Road” in Northeastern Iran
Mohammad-Reza Yaghoobi-Erbadi, Professor, Tehran University of Medical Sciences, Tehran, Iran

11:30 – 11:45  Expansion of Cutaneous Leishmaniasis in Jordan: Proper Identification and Control Concerns
Nawal Hijjawi, Assistant Professor, Hashemite University, Zarqa, Jordan

11:45 – 12:00  Discussion
12:00 – 13:30  Lunch
EPIDEMIOLOGY OF LEISHMANIASIS - II

**CHAIR:** Afif Ben-Salah, Department Head, Institute Pasteur de Tunis, Tunis, Tunisia

**RAPPORTEUR:** Jeff Villinski, Head of the Molecular Biology Section, U.S. Naval Medical Research Unit # 3 (NAMRU-3), Cairo, Egypt

   Jamal Abdul Nasir Yaqubi, Leishmania and Malaria Control Program, Ministry of Health, Kabul, Afghanistan

13:45 – 14:00 Epidemiology of Leishmaniasis in Libya
   Badereddin Annajar, General Coordinator of the National Clinical Program for Leishmaniasis, National Centre for Infectious Diseases Prevention and Control, Tripoli, Libyan Arab Jamahiriya

14:00 – 14:15 Visceral Leishmaniasis in Tunisia: Spatial Distribution and Association with Climatic Factors
   Aida Bouratbine, Head, research LR 05SP03, Lab of Parasitology, Institut Pasteur de Tunis, Tunis, Tunisia

14:15 – 14:30 Overview and Future Perspectives of Leishmaniasis and Sand Fly Research in Turkey
   Yusef Ozbel, Professor, Ege University Medical School Department of Parasitology, Bornova, Izmir, Turkey

14:30 – 15:00 Discussion

VECTORS and RESERVOIRS of LEISHMANIASIS

**CHAIR:** Mary Ann McDowell, Assistant Professor, Eck Institute for Global Health, University of Notre Dame, Indiana, USA

**RAPPORTEUR:** Gregory Lanzaro, Professor, University of California, Davis, California, USA

15:00 – 15:15 Canine Leishmaniasis in Northern Morocco
   Meryem Lemrani, Researcher, Institut Pasteur du Maroc, Casablanca, Morocco

15:15 – 15:30 Visceral Leishmaniasis in Eastern Sudan
   Omran Osman, Associate Professor, University of Khartoum, Khartoum, Sudan

15:30 – 15:45 Genetic Diversity of Phlebotomus orientalis the Vector of Visceral Leishmaniasis in Sudan
   Mo’awia Mukhtar Hassan, Assistant research Professor, Tropical Medicine Research Institute, Khartoum, Sudan

15:45 – 16:00 Morphological and Taxonomical Study of Leishmaniasis Vectors in the Coastal Region of Syria
   Samar Al Nabhas, Professor, Damascus University, Faculty of Sciences, Department of Animal Biology, Damascus, Syria

16:00 – 16:15 Discussion

16:15 – 16:30 Break
TREATMENT of LEISHMANIASIS

CHAIR: K.P. Chang, Professor, Chicago Medical School/RFUMS, North Chicago, Illinois, USA

RAPPORTEUR: Peter Melby, Professor, University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA

16:30 – 16:45 Emergence of Antimony-Resistant Strains of Leishmania major and Leishmania killicki in Algeria
   Zoubir Harrat, Head of the Laboratory of Eco-epidemiologie Parasitaire, Institut Pasteur d’Algerie, Algiers, Algeria

16:45 – 17:00 Comparison Between Local and Systemic Treatment in Anthroponotic Cutaneous Leishmaniasis (ACL)
   Mohammad Reza Shirzadi, Director of the Zoonoses Department, Ministry of Health of Iran, Tehran, Iran

17:00 – 17:15 Leishmania Myo-Inositol Transporter (MIT): Drug Delivery and Novel Therapeutic Target
   Andreas Seyfang, Assistant Professor, University of South Florida College of Medicine, Tampa, Florida, USA

17:15 – 17:30 Discussion

17:30 – 19:00 Poster Viewing

19:00 Poster Viewing and Reception

WEDNESDAY, 24 JUNE

08:00 – 18:00 Registration and Information Desk Open

DIAGNOSTICS OF LEISHMANIASIS

CHAIR: Sima Rafati, Professor and Head of the Molecular Immunology and Vaccine Research Lab, Pasteur Institute of Iran, Tehran, Iran

RAPPORTEUR: Hira Nakhas, Director, Division of Emerging and Transfusion Transmitted Diseases, Food and Drug Administration (FDA), U.S. Department of Health and Human Services

09:00 – 09:15 Genomic Applications to Develop Leishmania Diagnostics and to Select Leishmania Candidate Targets for Control Strategies
   Ikram Guizani, Senior Investigator and Laboratory Head, Institut Pasteur de Tunis, Tunis, Tunisia

09:15 – 09:30 Recent Advances in Molecular Diagnostics (Leishmaniasis)
   Abedelmajeed Nasereddin, PhD Student, Al-Quds University, East Jerusalem, Palestinian Authority
09:30 – 09:45 Molecular Approaches to Augment Field Studies of Vector Borne Diseases
    Jeffrey Villinski, Head of the Molecular Biology Section, Vector Biology Research Program, U.S. Naval Medical Research Unit-III, Cairo, Egypt

10:00 – 10:15 Evaluation of RK39 Strip Test for the Diagnosis of Visceral Leishmaniasis in Tunisia.
    Moncef Ben Said, Professor and Head of the Laboratory of Parasitology, Farhat Hached Hospital, Sousse, Tunisia

10:15 – 10:30 Discussion

10:30 – 11:00 Break

PATHOGENESIS and GENETICS of LEISHMANIASIS

CHAIR: Stephen Beverley, Professor and Head of Molecular Microbiology, Washington University School of Medicine, St. Louis, Missouri, USA
RAPPORTEUR: Mary-Ann McDowell, Assistant Professor, Eck Institute for Global Health, University of Notre Dame, Notre Dame, Indiana, USA

11:00 – 11:15 Elucidation of Parasitic Mechanisms from Laboratory to Clinic: Epidemiologically Relevant Leishmania for Developing Effective Prophylactic/Therapeutic Strategies Against Leishmaniasis
    Kwang Poo Chang, Professor, Chicago Medical School/RFUMS, North Chicago, Illinois, USA

11:15 – 11:30 Leishmania-induced Immunomodulation of Macrophages by the Inhibition of Several Non-Coding RNA (ncRNA) Biosynthesis
    Gautam Chaudhuri, Professor, Meharry Medical College, Nashville, Tennessee, USA

11:30 – 11:45 Murine Visceral Leishmaniasis: IgM and Polyclonal B Cell Activation Lead to Disease Exacerbation
    Diane McMahon-Pratt, Professor, Yale University School of Public Health, New Haven, Connecticut, USA

11:45 – 12:00 Malnutrition and Visceral Leishmaniasis
    Peter Melby, Professor, University of Texas Health Science Center, San Antonio, Texas

12:00 – 12:15 Genetics of Visceral Leishmaniasis in Sudan
    Hiba Mohamad, Assistant Professor of Molecular Biology, Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan

12:15 – 12:30 Sudanese Leishmania donovani: One Parasite, Different Diseases
    Maowia Mukhtar, Professor, Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan

12:30 – 13:00 Discussion

13:00 – 14:30 Lunch
SYSTEMATICS, POPULATION GENETICS and BIOLOGY of SAND FLIES

**CHAIR:** Richard Titus, Professor, Colorado State University, Fort Collins, Colorado, USA

**RAPPORTEUR:** Marcelo Ramalho-Ortigao, Assistant Professor, Kansas State University, Manhattan, Kansas, USA

14:30 – 14:45 Systematics of New World Phlebotomines: Molecular Phylogenetics Clarify Evolutionary Relationships
   - Leonard Munstermann, Senior Research Scientist, Yale University, School of Public Health, New Haven, Connecticut, USA

14:45 – 15:00 Population Structure and Geographical Subdivision of the *Leishmania major* Vector *Phlebotomus papatasi* (Diptera:Psychodidae) as Revealed by Microsatellite Variation
   - Omar Hamarsheh, Assistant Professor and Research Scientist, Al-Quds University, Department of Biology, East Jerusalem, Palestinian Authority

15:00 – 15:15 Sand Fly Population and Molecular Genetics
   - Gregory Lanzaro, Professor, University of California, Davis, California

15:15 – 15:30 Discussion

15:30 – 16:00 Break

LEISHMANIA-SAND FLY HOST INTERACTIONS

**CHAIR:** David Sacks, Chief, Intracellular Parasite Biology Section, Laboratory of Parasitic Diseases, NIH, NIAID, Bethesda, Maryland, USA

**RAPPORTEUR:** Jesus Valenzuela, Chief, Vector Molecular Biology Unit, Division of Intramural Research, NIH, NIAID, Bethesda, Maryland, USA

16:00 – 16:15 Demonstration of a *Leishmania* Sexual Cycle in the Sand Fly Vector
   - Stephen Beverly, Professor and Head of Molecular Microbiology, University School of Medicine, St. Louis, Missouri, USA

16:15 – 16:30 Sand Fly-Leishmania Midgut Interactions
   - Marcelo Ramalho-Ortigao, Assistant Professor, Kansas State University, Manhattan, Kansas, USA

16:30 – 16:45 The Role of Sand Flies in Leishmaniasis
   - Richard Titus, Professor, Colorado State University, Fort Collins, Colorado, USA

16:45 – 17:00 Human cellular immune response against *Phlebotomus papatasi* saliva is mediated by CD8+ T lymphocytes with Tc2 phenotype.
   - Maha Abdeladhim, Institut Pasteur de Tunis, Tunis, Tunisia

17:00 – 17:15 Discussion

18:00 Depart for Evening Tunisia Event - (Optional)

*(Participants who choose to participate in this optional event are responsible for their own costs.)*