

INFECTIOUS DISEASES SYMPOSIUM:

INNOVATIVE APPROACHES TO DIAGNOSTICS AND RESEARCH



5-7 SEPTEMBER 2023

BAR ILAN UNIVERSITY, RAMAT GAN, ISRAEL

THE AIM OF THIS SYMPOSIUM IS TO ADDRESS CLINICAL AND
DIAGNOSTIC ISSUES REGARDING INFECTIOUS DISEASES

Dear Colleagues,

We are pleased and happy to invite you to:

Infectious Disease Symposium: Innovative Approaches to Diagnostics and Research

5–7 September 2023, Bar Ilan University, Ramat gan, Israel

The aim of this symposium is to address clinical and diagnostic issues regarding infectious diseases. The conference will cover early diagnosis and treatment of intrauterine infections, flaviviruses diagnosis and challenges, challenges in diagnosis of bacterial and parasitic infections, as well detecting the emergence of the next disease X. In addition, our goal is to establish a partnership plan for communication between the laboratory and clinicians on how to implement the testing in clinical practice along international evidence-based and expert opinion guidelines.

This conference is intended for laboratory directors, virologists, Internal medicine physicians, infectious diseases experts, clinical chemists, laboratory technologists, and biomedical engineers interested in learning strategies for developing and implementing high-sensitivity in vitro diagnostic tests.

National Scientific Committee

Prof. Amos Danielli (Faculty of Engineering, Bar Ilan University, Israel)

Prof. Avi Peretz (Tzafon Medical Center & Azrieli Faculty of Medicine, Bar Ilan University, Israel)

Prof. Yonat Shemer (Ben Gurion University of the Negev, Israel)

Prof. Eli Schwartz (Sheba Medical Center & Tel Aviv University, Israel)

SYMPOSIUM TOPICS

- Flaviviruses diagnosis challenges and advances
- Intrauterine infections / Pregnancy: early diagnosis and treatment
- Systems Biology Approaches to diagnosis
- Bioterror
- Challenges in diagnosis of bacterial and Parasitic infections
- Detecting the emergence of the next disease X

MEETING ORGANISERS

Israel Society for Clinical Laboratory Sciences (ISCLS)

Bar-Ilan University (Faculty of Engineering & Azrieli Faculty of Medicine)

Israel Science Foundation (ISF)

Bar-Ilan Institute of Nanotechnology and Advanced Materials (BINA)

Israel Society of Parasitology and Tropical diseases

Israel Ministry of Science and Technology

INFECTIOUS DISEASES SYMPOSIUM: INNOVATIVE APPROACHES TO RESEARCH AND DIAGNOSTICS

SCIENTIFIC COMMITTEE



PROF. AMOS DANIELLI
BAR ILAN UNIVERSITY



PROF. AVI PERETZ
TZAFON MEDICAL CENTER
BAR ILAN UNIVERSITY



PROF. YONAT SHEMER
BEN GURION UNIVERSITY



PROF. ELI SCHWARTZ
SHEBA MEDICAL CENTER
TEL AVIV UNIVERSITY

PROGRAM



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TUESDAY, SEPTEMBER 5, 2023

Opening
and
greetings

09:00-09:30 Get together
09:30-10:00 Opening and greetings

Session 1
Part 1

Intrauterine infections/pregnancy: early diagnosis and treatment | Chair: Prof. Dana Wolf, HUJI & Hadassah Medical Center, Israel

10:00-11:20

10:00-10:30 **Congenital CMV; advances and challenges**
Dr. Marianne Leruez Ville, Necker Children's Hospital, Paris, France
10:30-10:50 **New markers of CMV infections**
Prof. Dana Wolf, HUJI & Hadassah Medical Center, Israel
10:50-11:20 **Maternal immunity**
Dr. Yariv Wine, Faculty of Life Sciences, Tel Aviv University, Israel

11:20 - 11:50 **Coffee Break**

Session 1
Part 2

Intrauterine infections/pregnancy: early diagnosis and treatment | Chair: Prof. Dana Wolf, HUJI & Hadassah Medical Center, Israel

11:50-12:40

11:50-12:10 **Rickettsia during pregnancy**
Dr. Yael Yagel, Ben Gurion University of the Negev, Israel
12:10-12:40 **Zika in pregnant women**
Prof. David Baud, University Hospital, Lausanne, Switzerland

12:40 - 13:40 **Lunch**

Session 2

Mega-diagnostics | Chair: Dr. Yuval Geffen, Northern Laboratory (MegaLab), Maccabi Health Care Services, Israel
13:40-15:20

13:40-14:05 **Antibiotic resistance prediction model for personalized treatment of UTI**
Dr. Olga Snitser, Northern Laboratory (Megalab), Maccabi Health care Services, Israel
14:05-14:30 **Screening of infectious diseases in blood units**
Prof. Eilat Shinar, Magen David Adom, Israel
14:30-14:55 **Diagnostics and bioterrorism**
Dr. Ofir Schuster, Israel Institute for Biological Research, Israel
14:55-15:20 **NGS in diagnostics of infectious diseases**
Prof. Jacob Moran Gilad, Ben Gurion University of the Negev, Israel

WEDNESDAY, SEPTEMBER 6, 2023

09:00-09:30 Get together

Session 3
Part 1

Flaviviruses - diagnosis challenges and advances | Chair: Prof. Eli Schwartz, Sheba Medical Center & Tel Aviv University, Israel
09:30-11:00

09:30-10:00 **Dealing with Flaviviruses diagnosis in Endemic countries; lesson from Vietnam**

Prof. Trung Nguyen Vu, **Pasteur Institute of Ho Chi Minh City, Vietnam**

10:00-10:30 **Comparison of RT PCR and rapid test for acute dengue fever in a diagnostic laboratory**

Dr. Le Thi Hoi, **Hanoi Medical University, Vietnam**

10:30-11:00 **Rapid and highly sensitive diagnosis of Zika, dengue, and West-Nile viruses infection using Magnetic Modulation Biosensing technology**

Prof. Amos Danielli, **Bar Ilan University, Israel**

11:00 - 11:30 **Coffee Break**

Session 3
Part 2

Flaviviruses - diagnosis challenges and advances | Chair: Prof. Eli Schwartz, Sheba Medical Center & Tel Aviv University, Israel
11:30-12:30

11:30-11:50 **Zika diagnosis in Israel**

Prof. Eli Schwartz, **Sheba Medical Center & Tel Aviv University, Israel**

11:50-12:10 **Design and generation of flavivirus antigens to explore conformational antibody response**

Dr. Alexander Rouvinski, **The Hebrew University of Jerusalem, Israel**

12:10-12:30 **Viral hepatitis E: one health**

Prof. Thirumalaisamy P. Velavan, **University of Tübingen, Germany**

12:30 - 13:30 **Lunch**

Session 4

Diagnostics in general | Chair: Prof. Avi Peretz, Tzafon Medical Center & Bar Ilan University, Israel
13:30-15:40

13:30-14:00 **Pearls and pitfalls of rapid diagnostic tests for infectious diseases**

Prof. Michael Libman, **McGill Centre for Viral Diseases, Montréal, Canada**

14:00-14:20 **Molecular stool testing- could this be a new era?**

Prof. Eli Schwartz, **Sheba Medical Center & Tel Aviv University, Israel**

14:20-14:40 **The common but undiagnosed bacterial pathogens -Challenges in diagnosis of Leptospira/ Rickettsia infections**

Dr. Yafit Atiya-Nasagi, **Israel Institute for Biological Research, Israel**

14:40-15:00 **Undiagnosed helminthic infection, the story of Strongyloides**

Dr. Tamar Grossman, **Parasitology Reference Laboratory, Public Health Laboratories –Jerusalem (PHL-J), Public Health Services (PHS), Ministry of Health (MOH), Israel**

15:00-15:20 **Emerging fungal infections**

Prof. Ronen Ben Ami, **Tel Aviv Sourasky Medical Center, Israel**

15:20-15:40 **Monitoring EBV-associated lymphoma tumor progression based on a novel herpes virus with methylation assay**

Prof. Meir Shamay, **Bar Ilan University, Israel**

THURSDAY, SEPTEMBER 7, 2023

09:00-09:30 Get together

The Future is Here | Chair: Prof. Galia Rahav, Sheba Medical Center, Israel

09:30-11:20

Session 5

09:30-10:00 **Cell-based Biosensors that can compute**

Prof. Ramez Daniel, Technion Israel Institute Of Technology, Israel

10:00-10:20 **Management of newly arise outbreaks**

Prof. Gili Regev, Sheba Medical Center, Israel

10:20-10:40 **Saliva-based diagnosis of respiratory diseases**

Dr. Michael Margulis, Bar Ilan University, Israel

10:40-11:00 **Rapid and highly sensitive antimicrobial susceptibility tests directly from positive blood cultures**

Dr. Merav Strauss, Emek Medical Center, Israel

11:00-11:20 **Application of Molecular Diagnostics of STD in the community**

Prof. Avi Peretz, Tzafon Medical Center & Bar Ilan University, Israel

11:20 - 11:50 **Coffee Break**

Industry talks | Chair: Prof. Yonat Shemer, Ben Gurion University of the Negev, Israel

11:50-13:20

Session 6

13:00 - 13:20 **Closing remarks**

Prof. Yonat Shemer, Ben Gurion University of the Negev, Israel

13:20 - 14:20 **Lunch**