

29th CURRENT COURSE ON IMMUNOGENETICS
DIDACTIC AND LABORATORY PARTS
and
25th CURRENT COURSE ON MOLECULAR GENETICS
DIDACTIC AND LABORATORY PARTS

EDUCATIONAL PROGRAM OF ASHI

ABHI APPROVED FOR CONTINUING EDUCATION CREDITS (CEC'S)

ORGANIZED BY:

*THE DEPARTMENT OF IMMUNOLOGY AND IMMUNOGENETICS OF THE INSTITUTO DE
DIAGNOSTICO Y REFERENCIA EPIDEMIOLOGICOS, (InDRE), SECRETARY OF HEALTH
Mexico City*

UNDER THE AUSPICES OF:

THE AMERICAN SOCIETY FOR HISTOCOMPATIBILITY & IMMUNOGENETICS (ASHI)
THE AMERICAN BOARD OF HISTOCOMPATIBILITY & IMMUNOGENETICS (ABHI)
FUNDACION COMPARTE VIDA, A.C.

DATE: JULY 26-AUGUST 6, 2010

IMMUNOGENETICS: JULY 26 –JULY 30
MOLECULAR GENETICS: AUGUST 2- AUGUST 6

WITH THE ACADEMIC ACCREDITATION OF UNAM
(UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO)

DIRECTOR OF THE COURSES: CLARA GORODEZKY

SITE, INFORMATION AND REGISTRATION:

Department of Immunology and Immunogenetics, InDRE, CENA VECE, Secretary of Health
Carpio # 470-1st floor
Mexico D.F., 11340, MEXICO
E-Mail: clarag@servidor.unam.mx
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5342-7550 Ext. 364, 241,242
Fax: (52 55) 5341-4418 & 5281-0073*

LIMITED TO 28 STUDENTS
FOR THE LABORATORY PARTS

REGISTRATION FEES:

*Didactic part only \$ 850.00 each Course
Didactic & Laboratory Parts \$1000.00 each Course*

29th CURRENT COURSE ON IMMUNOGENETICS DIDACTIC AND LABORATORY PARTS

MONDAY JULY 26

- 8.00-9.00** **Registration Open**
Laboratory: Blood Drawing
- 9.00-9.30 Opening Ceremony. General Director of InDRE
CELIA ALPUCHE
- 9.30-10.30 Genomic Approach of Complex Diseases in the Clinics
LORENA OROZCO
- 10.30-11.20 Concepts in Immunology Relevant to Immunogenetics
CLARA GORODEZKY
- 11.20-11.40** **COFFEE BREAK**
- 11.40-12.30 The Human MHC: HLA Class I and Class II Regions. Genetic Organization, Structure and Function
CLARA GORODEZKY
- 12.30-1.15 Molecular Analysis of Congenital Malformations and of Mendelian Diseases
ARIADNA GONZALEZ DEL ANGEL
- 1.15-2.00** **CONFERENCE AND LUNCH OFFERED BY GEN-PROBE TRANSPLANT DIAGNOSTICS**
Current Lifecodes Technology: Luminex Testing for DNA and HLA Antibodies
KELLY COUSINS
- 2.00-2.45** **LUNCH-GEN.PROBE TRANSPLANT DIAGNOSTICS**
- 2.45-3.40 Antigen Presentation. The Role of HLA Molecules in Cellular Interactions
ANDREA ZACHARY
- 3.40-4.30 Genetic and Immunological Basis of Neuro-Cysticercosis
GLADIS FRAGOSO
- 4.30-8.00** **Laboratory Part: Isolation of Mononuclear Cells. Methods of Isolation of Lymphocyte Subtypes: Nylon, Monoclonal Antibodies, Magnetic-Beads. HLA Typing by Microlymphocytotoxicity with Double Fluorescence Staining. Reading and Interpretation**
- | | | |
|-------------------------|-------------------------|----------------------------|
| FERNANDA PÉREZ | REBECA CEBALLOS | ALEJANDRA VÁZQUEZ |
| GONZALO LLIGUIN | DANAEE RODRÍGUEZ | ELIZABETH SOLÍS |
| BLANCA E. ROMERO | MAYRA E. SANCHEZ | JOSE ANTONIO SIERRA |

TUESDAY, JULY 27

- 8.00-9.00** **Laboratory Part: Reading and Interpretation Discussion of the Results of HLA Typing**
RICARDO ORDÓÑEZ
- | | | |
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| FERNANDA PÉREZ | ALEJANDRA VÁZQUEZ | REBECA CEBALLOS |
| DANAEE RODRIGUEZ | GONZALO LLIGUIN | ELIZABETH SOLÍS |
| MAYRA E. SANCHEZ | BLANCA E. ROMERO | JOSE ANTONIO SIERRA |
- 9.00-10.00 The MHC and Disease. Molecular Mechanisms of HLA Autoimmune Associated Diseases
CLARA GORODEZKY
- 10.00-10.50 Basic Principles of Population Genetics
ANDREA ZACHARY
- 10.50-11.10** **COFFEE BREAK**

- 11.10-12.00 Methods for Isolation of Cell-Subpopulations: HLA Typing By Microlymphocytotoxicity
DOD STEWART
- 12.00-1.00 Basis of Molecular Class I and Class II Typing
SUE LEFFELL
- 1.00-1.45 CONFERENCE AND LUNCH OFFERED BY ABALAT (ONE LAMBDA Distributor)**
The Screening of Donor Specific Antibodies in Kidney Transplantation
MAYRA LOPEZ-CEPERO
- 1.45-2.30 LUNCH-ABALAT (ONE-LAMBDA Distributor)**
- 2.30-8.00 Laboratory Part: Cross-Matching Testing. Identification of Antibodies Using Cell-Panel. Interpretation Of The Results**
- | | | |
|-------------------------------|--------------------------|-------------------------|
| <u>RICARDO ORDOÑEZ</u> | FERNANDA PEREZ | REBECA CEBALLOS |
| DANAEÉ RODRÍGUEZ | ALEJANDRA VAZQUEZ | BLANCA E. ROMERO |
| GONZALO LLIGUIN | ELIZABETH SOLÍS | MAYRA E. SANCHEZ |
| JOSE ANTONIO SIERRA | | |

WEDNESDAY JULY 28

- 8.15-9.00 The Role of Killer Immunoglobulin Like Receptors (KIR) and Their Ligands In Hematopoietic Stem Cell (HSCs) Transplantation
DAVID SENITZER
- 9.00-9.45 Anti-Endothelial Antibodies and Their Role in Organ Transplantation
ANAT TAMBUR
- 9.45-10.30 Cellular Monitoring In Solid Organ Transplantation
SUE LEFFELL
- 10.30-11.20 Current Methodology and Clinical Significance of Cross-Matching for Solid Organ Transplantation
DOD STEWART
- 11.20-11.40 COFFEE BREAK**
- 11.40-12.30 Interference in Laboratory Tests: Causes and Solutions
ANDREA ZACHARY
- 12.30-1.20 Identification of HLA Antibodies in Patients Using Cytotoxic and Flow Cytometric Assays
DOD STEWART
- 1.20-2.05 CONFERENCE AND LUNCH OFFERED BY LIFETECHNOLOGIES**
Lifetechnologies for Diagnosis and its Use in Transplantation
LESLIE SUTHERLAND
- 2.05-2.50 LUNCH BY LIFETECHNOLOGIES**
- 2.50-8.00 Laboratory Part: Identification of Anti-HLA Antibodies 1. ELISA and Arraybeads Multi-Analyte System 2. Discussion of Results.**
- | | | |
|--------------------------|-------------------------------|-------------------------|
| CARMEN ALAEZ | <u>KELLY COUSINS</u> | DAVID GARCIA |
| ANDREA MUNGUÍA | ARACELI RODRIGUEZ | DANAEÉ RODRIGUEZ |
| FERNANDA PEREZ | <u>RICARDO ORDOÑEZ</u> | REBECA CEBALLOS |
| ALEJANDRA VAZQUEZ | GONZALO LLIGUIN | BLANCA E. ROMERO |
| MAYRA E. SANCHEZ | | |

THURSDAY, JULY 29

- 8.15-8.50 Problems and Strategies for the Accreditation of an Immunogenetics Laboratory in Latin-America
ALEJANDRA VAZQUEZ
- 8.50-9.45 The Role of HLA-DQ and DP Antibodies in Organ Transplantation
ANAT TAMBUR
- 9.45-10.40 Optimization of the Use of Solid Phase Assays for Antibody Detection
ANDREA ZACHARY
- 10.40-11.30 Monitoring Relapse and/or Rejection in HSCs Transplantation
DAVID SENITZER
- 11.30-11.50 COFFEE BREAK**
- 11.50- 12.40 Transplant Options for Highly Sensitized Patients
ANDREA ZACHARY
- 12.40-1.30 HLA, Neutrophil and Platelet Specific Antibodies in TRALI and in Transfusion Reactions
SUE LEFFELL
- 1.30-2.15 CONFERENCE OFFERED BY UNIPARTS/CORNING LIFE SCIENCES**
Microplate Selection for Luminescence, Fluorescence and other Assays
JOHN SHYU
- 2.15-3.00 LUNCH-UNIPARTS/CORNING LIFE SCIENCES**
- 3.00-8.00 Laboratory Part: Quantitation of CD34+ Cells in Bone Marrow or Peripheral Blood Stem Cells by Flow Cytometry.**
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|--------------------------|-------------------------|-------------------------|
| ALEJANDRA VAZQUEZ | DANAEE RODRIGUEZ | MAYRA E. SANCHEZ |
| REBECA CEBALLOS | BLANCA E. ROMERO | ELIZABETH SOLIS |
| FERNANDA PEREZ | GONZALO LLIGUIN | |

FRIDAY, JULY 30

- 8.00-8.40 Discussion of Laboratory Results**
- 8.40-9.20 Heart Transplantation in Highly Sensitized Patients
ANAT TAMBUR
- 9.20-10.10 Immunoregulation in Liver Transplantation
ANAT TAMBUR
- 10.10-11.00 Immunological Features of HSC Transplantation
SUE LEFFELL
- 11.00-11.15 COFFEE BREAK**
- 11.15-11.55 Cell Recovery in Heart and Other Tissues
RUBEN ARGUERO
- 11.55-12.35 Ethical and Legal Aspects Of Solid Organ Transplantation
ARTURO DIB KURI

12.35-1.25 Characteristics of Public Cord Blood Banks-**BACECU**: Analysis of Stored Units and of Clinical Outcome
CLARA GORODEZKY

1.25-2.10 **CONFERENCE-LUNCH MILTENYI BIOTEC**
Basic and Clinical Application of Cells Isolated With Magnetic Beads
FRANK KÜNKEL

2.10-2.50 LUNCH-MILTENYI BIOTEC

2.50-3.30 Impact of Genetic Diversity in Unrelated Bone Marrow Donor Registries: The Mexican Registry-
DONORMO
CLARA GORODEZKY

3.30-4.20 What is an Acceptable Mismatch in Hematopoietic Stem Cell Transplantation?
DAVID SENITZER

4.20 -5.10 Contribution of Different Gene Deletions in Graft Versus Host Disease
DAVID SENITZER

5.10 -5.25 COFFEE BREAK

5.25 -6.10 Molecular Anthropology. Biological Relevance of the Epidemiology of Human Populations
CLARA GORODEZKY

6.10-7.00 Applying Immunogenetics to Vaccine Design
SUE LEFFELL

7.00–7.45 Delivery of Diplomas. Adjourn

8.30-1.00 AM BANQUET OFFERED BY: Abbott Molecular, Corning Life Sciences, One Lambda & Uniparts

25th CURRENT COURSE ON MOLECULAR GENETICS DIDACTIC AND LABORATORY PARTS

MONDAY, AUGUST 2

- 9.00-9.30 Opening Ceremony. General Director of InDRE
CELIA ALPUCHE
- 9.30-10.30 From Pharmacogenetics to Pharmacogenomics
MARISOL LOPEZ
- 10.30-11.20 Genetic Expression
HOMERO HERNANDEZ
- 11.20-11.40 COFFEE BREAK**
- 11.40-12.35 Molecular Epidemiology and Genomics
CLARA GORODEZKY
- 12.35-1.25 Aggregation and Polymerization of TAU Protein in Alzheimer Disease
RAÚL MENA
- 1.25-2.10 CONFERENCE AND LUNCH OFFERED BY QIAGEN**
Methods of Mitochondrial DNA and of RNA Extraction from Different Tissues
FABIOLA REYES ROMAN
- 2.10-3.00 LUNCH OFFERED BY QIAGEN-MEXICO**
- 3.00-3.45 Theory and Practical Basis of PCR
CARMEN ALAEZ
- 3.45-8.00 Laboratory Part: Extraction and Purifying Of DNA Using Different Methods. Obtaining PCR Products for the Different Techniques. Electrophoresis Of The PCR Product. PCR-SSP**
- | | | |
|--------------------------|-----------------------------|-------------------------|
| CARMEN ALAEZ | ANDREA MUNGUIA | HILARIO FLORES |
| DAVID NORDMAN | CAROLINA HERNANDEZ | OLIVIA BAUTISTA |
| ARACELI RODRIGUEZ | DAVID GARCIA | LAURA TOVAR |
| KARIM R. MARTINEZ | FELICITAS MANZANAREZ | PATRICIA MUNGUIA |

TUESDAY, AUGUST 3

- 8.15-9.15 The MHC: Diversity and Polymorphism
RAJA RAJALINGAM
- 9.15-10.10 Genetic Organization Of The MHC. The Role of Class I and Class II Genes in Physiology
CLARA GORODEZKY
- 10.10-11.00 KIR Genes (Immunoglobulin-Like Receptors): Diversity, Polymorphism and Evolution
RAJA RAJALINGAM
- 11.00-11.45 Technology for the Use in Human Identity and its Application
CAROLINA HERNANDEZ
- 11.45-12.00 COFFEE BREAK**
- 12.00-12.40 Basics and Theory of Sequencing. Sequence Based Typing of Class I and Class II Genes
CARMEN ALAEZ
- 12.40-1.30 Relevant Molecular Methods for Detection of HLA Polymorphisms. Resolution of Ambiguities According to the Application
MARCELO FERNANDEZ-VIÑA

- 3.00-3.50 Challenges in the Mobilization of HSCs: Current knowledge and Perspectives
BRUNO NERVI
- 3.50-4.45 The Role of Cytokines in Solid Organ and in HSC Transplantation
JOANNIS MITYLINEOS
- 4.45 – 5.00 COFFEE BREAK**
- 5.00-5.50 Genetic Diversity of Open as Well as Endogamous Populations
MARCELO FERNANDEZ-VIÑA
- 5.50 –6.40 Ethical Aspects and Applications of HSC From Umbilical Cord for HSC Transplantation and Ethics of Bio-Banks
CLARA GORODEZKY
- 7.00 - 7.40 Delivery of Diplomas. Adjourn**
- 8.30 - 1.00 AM BANQUET OFFERED BY: Abbott Molecular, Corning Life Sciences, One Lambda, Uniparts**

INTERNATIONAL PROFESSORS

- | | | |
|---|--|---|
| SUE LEFELL
Immunogenetics Laboratory
Johns Hopkins University
Baltimore, Maryland, USA | MARCELO FERNANDEZ-VIÑA
Laboratory of HLA
MD Anderson Cancer Center
Universidad de Houston Texas,
Texas, USA | BRONWEN SHAW
Institute of Cancer
Research/Royal Marsden
Hospital/Anthony Nolan Trust
Londres, Inglaterra |
| ANAT TAMBUR
Transplant Immunology
Laboratory. Division of Organ
Transplantation,
Comprehensive Transplant
Center.Feinberg School of
Medicine, Northwestern
University
Chicago, Illinois, EUA | DAVID NORDMAN
Gen-Probe Transplant Diagnostics
Stamford, Connecticut, USA | EMILIO NOVELO
One Lambda, Inc.
Los Angeles California, EUA |
| JOANNIS MYTILINEOS
Institute Für Klinische
Transfusionsmedizin und
Immungenetik.
Universitätsklinikum Ulm,
Ulm, Alemania | DAVID SENITZER
Histocompatibility Laboratory
City of Hope, National Cancer
Center.Duarte, California, USA | DAVID WATKINS
Wisconsin Regional Primate
Research Center
Wisconsin, Milwaukee, USA |
| DR. BRUNO NERVI
Cancer Center. Universidad
Católica
Santiago de Chile, Chile | RAJA RAJALINGAM
Immunogenetics Laboratory
UCLA Medical School
Los Angeles, California, USA | ANDREA ZACHARY
Immunogenetics Laboratory
Johns Hopkins University
Baltimore, Maryland, USA |
| | KELLY COUSINS
Gen-Probe Transplant Diagnostics
Stamford, Connecticut, USA | DOD STEWART
Laboratory Consultant AFDT
(American Foundation For
Donation & Transplantation)
Nueva Orleans, Luisiana, USA |
| | RICARDO ORDONEZ
One Lambda, Inc.
Los Angeles, California USA | |

NATIONAL PROFESSORS

RUBEN ARGUERO

Cardio-Torax Unit, ABC Medical Center

CAROLINA HERNÁNDEZ

Life Technologies, Mexico

HOMERO HERNÁNDEZ

Dept. Of Cell Biology. Faculty Of Chemistry, UNAM

REBECA CEBALLOS

Lab. Of Immunology. Dept. Of Microbiology, Universidad Autónoma de Aguascalientes

ALICIA CERVANTES

Service Of Genetics. Hospital General de Mexico, OD./Facultad de Medicina, UNAM

ARTURO DIB KURI

Centro Nacional de Trasplantes, Secretary Of Health

MARISOL LÓPEZ

Dept.Of Biological Systems Division of Biological And Health Sciences. UAM

GLADIS FRAGOSO

Dept. Of Immunology. Institute Of Biomedical Research, UNAM

ARIADNA GONZÁLEZ DEL ÁNGEL

Dept. Of Investigation On Human Genetics. Instituto Nacional de Pediatría

HERBERT GARCIA CASTILLO

Life Technologies, Mexico

CLARA GORODEZKY

Dept. Of Immunology And Immunogenetics, InDRE, Secretary Of Health

RAÚL MENA

Dept. Of Physiology And Neurosciences, CINVESTAV, IPN

BLANCA E. ROMERO

Lab. Of Immunology. Dept. Of Microbiology, Universidad Autónoma de Aguascalientes

EMILIO CORDOVA

Lab. Of Research Of Complex Diseases.. INMEGEN.

LAURA TOVAR

Life Technologies, Mexico

LORENA OROZCO

Lab. Of Research Of Complex Diseases.. INMEGEN.

PRESENTATIONS – LUNCHES

GARY PARISH

Innogenetics Alpharetta, Georgia,
USA

KELLY COUSINS

Gen-Probe Transplant
Diagnostics
Stamford, Connecticut, USA

ROXANA SUASTE

Uniparts S.A. de C.V.
Mexico

JAN CAPPER

Celera Corp.
San Francisco, California,
USA

FABIOLA REYES

ROMAN
Qiagen México

LAURA TOVAR

Life Technologies
México

LESLIE SUTHERLAND

Invitrogen, part of Life
Technologies
Wisconsin, USA

FRANK KÜNKEL

Miltenyi Biotec GmbH
Bergisch Gladbach,
Alemania

JOHN SHYU

Corning Life Sciences
USA

MAYRA LOPEZ-CEPERO

LifeLink Foundation
Tampa, Florida, EUA

SHONA WHYTE (Only Presentation)

Daan Diagnostics
Burnaby, BC, Canada

PROFESSORS AND COLLABORATORS OF THE DEPARTMENT OF IMMUNOGENETICS, InDRE

CARMEN ALÁEZ

GRACIA MORENO
GONZALO LLIGÜIN
DAVID GARCÍA
FELÍCITAS MANZANARES
FERNANDA PEREZ
PATRICIA MUNGUÍA
ALEJANDRO HERNANDEZ

GRACIA MORENO

HILARIO FLORES
ANDREA MUNGUÍA
ARACELI RODRÍGUEZ
ELIZABETH SOLÍS
CYNTHIA CERVANTES
ALEJANDRA VÁZQUEZ
ZORAIDA GALVÁN

OLIVIA BAUTISTA

MAYRA E SANCHEZ
KARIM R. MARTINEZ
SANDRA RICO
DANAEE RODRÍGUEZ
JOSÉ ANTONIO SIERRA
MARIA PEREZ
DORA RUBIO

SUPPORTING COMPANIES

ACCESOLAB

ABBOTT LABORATORIES DE MEXICO, S.A. de C.V.
BIO-RAD, LIFE SCIENCE GROUP S.A.
LIFE TECHNOLOGIES DE MEXICO
CORNING LIFE SCIENCES
GEN-PROBE TRANSPLANT DIAGNOSTICS
METRIX LABORATORIES de C.V.

BIODIST, S.A. de C.V.

QIAGEN, MEXICO, Inc.
ABBOTT MOLECULAR, Inc.
PROMEGA CORP.
INNOGENETICS, Inc.
CELERA CORP.
MCD Lab, S.A. de C.V.

NOVARTIS FARMACEUTICA, S.A. de C.V.
INVITROGEN, PART OF LIFE TECHNOLOGIES
INDUSTRIAS BIOSELEC S.A. de C.V.
ONE LAMBDA, Inc.
MILTENYI BIOTEC, GmbH
GENZYME MEXICO S.A. De C.V.
TERUMO MEDICAL de MEXICO S.A. de C.V.
DAAN DIAGNOSTICS Ltd.

NEW ENGLAND BIOLABS
ABALAT, S.A. de C.V.
SCIMERICAS S.A. de C.V.
INTERLAB MEXICO, S.A. de C.V
IMPROMED S. A. de C.V.
UNIPARTS, S.A. de C.V.
PROTRANS GmbH