



ISID NEWS

An Official Publication of the International Society for Infectious Diseases

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ISID NEWS

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11th International Congress on Infectious Diseases in Cancun, Mexico, March 4–7, 2004!



Abstract Deadline is Extended to December 1

Early Registration Discount Deadline and Special Discount Rate
Deadline for Latin American participants is January 23, 2004

The Program Committee is delighted to present an
outstanding roster of distinguished speakers,
strong scientific symposia, and exciting satellite sessions.

**Use the Electronic System now to
submit abstracts: <http://www.isid.org>**

Congress Approved for CME Credits

The scientific program of the 11th International Congress on Infectious Diseases has been reviewed and approved for Category 1 credit toward the American Medical Association (AMA) Physician's Recognition Award. The AMA will approve this educational activity for a maximum number of Category 1 credits. Each physician should claim only those credits that he/she actually spent in the educational activity. One credit may be claimed for each hour of participation.



11th ICID Satellite Symposia

“Invasive Fungal Infections: A Worldwide Problem”

Friday, March 5, 2004

from 18:30 to 20:30

Sponsored by Pfizer Inc.

“Reassessing AECB Therapy—the Impact of New Clinical Findings”

Saturday, March 6, 2004

from 07:00 to 08:15

Sponsored by

Bayer HealthCare

“Optimizing Treatment Outcomes in Nosocomial Pneumonia and Skin Structure Infections”

Saturday, March 6, 2004

from 13:00 to 15:00

Sponsored by Pfizer Inc.

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11th International Congress on Infectious Diseases Cancun, Mexico · March 4–7, 2004 · Program Update

The following symposia have been scheduled.

Please note that topics are subject to change.

Controversies and New Developments in the Treatment of CNS Infections

- Bacterial Meningitis: New Trends in Epidemiology and Treatment
- Dexamethasone for Pediatric Bacterial Meningitis: Is it Beneficial in Developing Countries?
- Oral Glycerol versus Intravenous Dexamethasone for Childhood Bacterial Meningitis: Results of a Clinical Trial
- Developments in the Diagnosis and Management of Brain Abscess

Questions and Answers in Invasive Fungal Infections

- Do Patients Infected with Resistant Yeasts Have Worse Clinical Outcomes?
- New Agents and New Strategies for the Treatment of Candida
- Treating Invasive Molds: What's Available and What's Coming
- The Role of Improved Serodiagnosis for the Identification of Systemic Fungal Infections

New Developments in Severe Sepsis

- Pathogenesis of Sepsis
- Identifying Patients with Sepsis
- Novel Experimental Therapies for Sepsis
- Current Therapy of Sepsis

New Concepts in Infectious Diseases

- Bacteriophage Killing of Bacteria: A Weapon against *B. anthracis*
- *Wolbachia* and *Filariasis*: The Bacteria behind the Worm
- Free Amoeba as Trojan Horses for Pneumonia Pathogens
- Genetic Recombination and Intraerythrocyte Life to Escape Immune System

Controlling Multi-resistant Gram-positive Cocci: Novel Antimicrobials and Existing Agents

- New Agents for the Treatment of Multi-resistant Staphylococci and Enterococci
- Understanding Mechanisms of Evolving Resistance in Gram-positive Bacteria
- Combination Therapy for VRSA and VRE
- Phytotherapeutics: Are They an Alternative?

Problems Posed by Newly Identified or Introduced Viruses

- Hendra Virus
- Nipah Virus: Bats to Pigs to Men
- Manifest Destiny? The Epidemiology of West Nile Virus in North America
- Other Emerging Vector-borne Viral Diseases

Antimicrobial Resistant Pathogens: Problems and Solutions

- Understanding Streptomycin and Multiple Drug Resistance in *Yersinia pestis*
- Fluoroquinolone Resistance in *Streptococcus pneumoniae*
- Strategies to Limit Antimicrobial Resistance in the Community: What Works
- Evidence-based Control of Resistant Nosocomial Pathogens

Understanding Community-acquired Bacterial Pneumonia in Children

- Challenges to Diagnosing Pneumonia in Children
- What is the Gold Standard for the Etiological Diagnosis of Pneumonia?
- The Value of X-ray in Standardization of the Diagnosis of Pneumonia
- The Use of Vaccines to Determine the Etiology of Pneumonia

The Resistant Pneumococcus and Vaccination—Where Are We in 2004?

- The Experience in the USA—4 Years after Introduction of the Vaccine
- Replacement Phenomenon and Antibiotic Resistance
- Pneumococcal Conjugate Vaccines and Antibiotic Use in Children—Are They Related?
- Expectations from Countries with High Rates of Antibiotic Resistance Beyond the USA

Evolving Drug Resistance in Nosocomial Gram-negative Pathogens

- The Permeability Barrier in Gram-negative Pathogens
- Extended Spectrum of β -lactamase-mediated Resistance in *Enterobacteriaceae* and in Gram-negative Nonfermenters
- Zinc Carbapenemases as Emerging Resistance Determinants in Gram-negative Pathogens
- Antimicrobial Options for Treatment of Nosocomial Gram-negative Infections Caused by Multidrug-resistant Strains

Bioterrorism: Infectious Diseases as Weapons

- Emerging Techniques for Rapid Diagnosis of Agents of Bioterrorism
- Anthrax Vaccines: Where We Stand and Where We Are Going
- Designing Surveillance for Identifying Bioterrorism Outbreaks
- Genetic Relationships and Virulence Genes of Orthopoxviruses

Shizuo AKIRA, Japan
Of Flies and Men: The Role of Toll-like Receptors in Innate Immunity

Paul FARMER, USA
Overcoming Inequality to Treat Multiple Drug Resistant TB and HIV in Low-resource Settings

Eduardo GOTUZZO, PERU
A Hidden Epidemic: The HTLV-I Story in Latin America

Adrian V.S. HILL, United Kingdom
Genetic Susceptibility to Infectious Diseases

Rino RAPPUOLI, Italy
Reverse Vaccinology: Using Genome Information to Develop New Vaccines

Jaime SEPULVEDA, Mexico
Cholera in Latin America: The Paradoxical Benefits of the Last Pandemic

Health Impact of Food-borne Pathogens

- WHO Program on Food-borne Infections
- Non-typhoid Salmonella as a Food-borne Pathogen
- The Public Health Impact of *Campylobacter*
- Clinical and Epidemiological Aspects of *E. coli* O:157:H7 in Latin America

Confronting Pediatric HIV/AIDS Globally

- Consequences of HIV/AIDS on Child Survival with Emphasis on Latin America
- Managing Opportunistic Infections and HIV Complications in Low-resource Settings
- Strategies for Initial Therapies and Late Modifications in Children Infected with HIV
- Enabling AIDS Orphans to Achieve Healthy Productive Adulthood: Affordable Strategies that Work

Understanding Biofilms and their Role in Infectious Diseases

- Basic Molecular and Cellular Aspects of Quorum Sensing Involved in Biofilm Formation
- Antibiotic Tolerance in Biofilms and its Role in Persistent Infections
- Clinical Management and Therapy of Airway Biofilm Disease
- Role of Biofilm Polysaccharides in Infection and Prospects for Immunotherapeutic Control

Prosthetic Device Infections

- Physiopathology of Prosthetic Device Infections
- Therapy of Different Prosthetic Device Infections—the USA Experience
- An Algorithm for a Systematic Approach to Prosthetic Device Infections
- Cost-effectiveness of Different Approaches to the Therapy of Prosthetic Device Infections

Challenges to the Global Detection and Surveillance of Infectious Diseases

- Running a Global Infectious Diseases Surveillance Program: Accomplishments and Challenges for WHO
- Regional Networks for the Surveillance of Emerging Diseases and Outbreaks: Regional and International Impact
- Emerging and Infectious Disease Surveillance in Limited Resource Settings: The East African Infectious Disease Surveillance Network
- The Role of Media and Unofficial Groups in Emerging Disease Surveillance

Advances in Malaria

- Malaria Vaccines
- Impact of Drug Resistance on Malaria Treatment and Control
- Molecular Markers of Resistance in Malaria
- The Role of Var Gene Expression in Pathogenesis of Malaria

Dengue: A Challenge for Science and Public Health in the New Millennium

- The Changing Global Epidemiology of Dengue
- Double-edged Sword: Dengue Immunology and the Pathogenesis of Disease
- Diagnosing Dengue: What is Available and What is Coming
- Dengue Vaccines

The Effects of Antiretroviral Therapy on HIV Prevention: Intended and Unintended Consequences

- Impact of HAART on Infectiousness
- Transmission of Resistant Virus
- Using HAART as a “Morning-after Pill” to Prevent HIV
- HIV Risk Behaviors in the Era of HAART

A Multidisciplinary Approach to Hepatitis: Treatment and Diagnostic Options

- Clinical Laboratory Testing and Monitoring for Hepatitis Viruses
- Economical and Simplified Methodologies for Prevention of HBV Vertical Transmission
- Evolution in the Treatment and Management of Hepatitis B Virus Chronic Infection
- Challenges in the Treatment of Hepatitis C

Anatomy of an Outbreak: The SARS Story

- Global Recognition and Response to Novel Public Health Threats: The SARS Story
- Epidemiology and Control of SARS in a Community: The Canadian Experience
- Clinical Characteristics and Management of Patients with SARS: Lessons from Hong Kong
- Contingency Planning for a Global Pandemic: What International Organizations Should Learn from SARS

Science Against SARS

- Virology and Pathogenesis of Coronaviruses
- The SARS Coronavirus: Identification and Structural Biology
- Diagnostic Tests for SARS
- The SARS Genome and Prospects for Vaccine Development

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11th ICID Satellite Symposia

“Meningococcal
 Disease Prevention—
 Current Options and
 Future Prospects”

Friday, March 5, 2004
 from 13:00 to 15:00
 Sponsored by
 Chiron Vaccines

“New Insights in the
 Treatment of Severe
 Infections in the Multiple-
 Drug Resistant Situation”

Friday, March 5, 2004
 from 13:00 to 15:00
 Sponsored by Daiichi
 Pharmaceutical Co., Ltd.

“Meningococcal Update:
 Prevalence and
 Prevention”

Saturday, March 6, 2004
 from 13:00 to 15:00
 Sponsored by Baxter
 BioScience, Vaccines

Please visit our web site
www.isid.org for more
 information on the
 11th International
 Congress on Infectious
 Diseases as well as all
 of our programs and
 upcoming events.

Confirmed Speakers (October 2003)

Aidara-Kane Awa, Switzerland
Akira Shizuo, Japan
Asturias Edwin, USA
Barrios Julio, Cuba
Bouza Emilio, Spain
Braam Peter, Switzerland
Brook Itzhak, USA
Brown Graham, Australia
Bush Karen, USA
Calva Mercado Juan, Mexico
Cauda Roberto, Italy
Cherian Thomas, Switzerland
Christiansen Keryn, Australia
Chua Paul Kaw Bing, Malaysia
Cohen Jon, United Kingdom
Courvalin Patrick, France
Cravioto Alejandro, Mexico
Dagan Ron, Israel
Del Rio Carlos, USA
Della Negra Marinella, Brazil
Elford Jonathan,
United Kingdom
Falleiros Luiza-Helena, Brazil
Fernandez Heriberto, Chile
Fischetti Vincent, USA
Freedman David, USA
Friedlander Arthur M., USA
Garcia-Calleja Jesus M.,
Switzerland
Geddes Alasdair,
United Kingdom
Graybill John, USA
Grizzard Michael, USA
Gubler Duane, USA
Gutkind Gabriel, Argentina
Guzmán María G., Cuba
Hill Adrian, United Kingdom
Iglewski Barbara, USA
Kasper Dennis, USA
Klugman Keith, USA
Kobayashi Hiroyuki, Japan
Krčmery Vladimír, Slovakia
Leduc Jim, USA
Lepage Philippe, Belgium
Lew Daniel, Switzerland
Madhi Shabir, South Africa
Marr Kieren, USA
Mayer Kenneth, USA
McCormack Joe, Australia
McIntosh Ken, USA
Mehtar Shaheen, South Africa
Memish Ziad, Saudi Arabia

The 11th International Congress on Infectious Diseases in Cancun *continued from page 3*

Findings of the Global Pertussis Initiative

- Epidemiology and Clinical Aspects of Pertussis Disease (Health Burden, Current Treatment and Prevention)
- Universal Vaccination Strategies
- Targeted Vaccination Strategies
- Health Economic Modeling of Pertussis Immunization Strategies
- Ongoing Work of the Global Pertussis Initiative

Challenges to Polio Eradication

- Implementing IPV in Latin American Countries
- Understanding Immunological Coverage for Polio Control: The Role of OPV versus IPV
- IPV versus OPV: Results of the Cuban Clinical Trial
- Maintaining Control of Polio in Latin America: The Example of Mexico
- Global Eradication: What Does it Need to Happen?

Peritonitis

- Immunologic Events Resulting in the Development of Bacterial Peritonitis
- Etiology of Major Complications of Bacterial Peritonitis: Abscesses and Adhesions
- Current Status of the Diagnosis and Treatment of Bacterial Peritonitis and its Complications
- The Use of New Anti-infectives in the Treatment of Peritonitis

From the Genome to the Bedside

- Use of Genomics and Proteomics to Develop Better Diagnostic Tools for Infectious Diseases
- The Bacterial Genome as a Plan for the Development of New Antibiotics
- Using the Bacterial Genome to Study Pathogenesis
- Use of Genomic Information to Develop Novel Ways of Preventing Complications of Infection

Critical Issues for Infection Control:

Current Reflections

- Preparing for Bioterrorism: What Have We Learned in the Last Three Years?
- Post-Mortem: The US Smallpox Policy
- Implications of OSHA's Withdrawal of the TB Control Measures
- Have We Eliminated the Threat of Prion Diseases?
- Lessons from the SARS Epidemic

Institutions as Amplification Systems for the Spread of Infectious Diseases

- HCV Transmission in Prisons: How Much, How Do We Stop It?
- MRSA: Changing from an Institutionally Acquired to a Community Acquired Pathogen
- Nosocomially Acquired Tuberculosis: Recognizing and Preventing Transmission
- The Role of Institutions and HIV Spread in Low-resource Areas

Current Aspects of Urinary Tract Infection Therapy

- Treatment of Acute Pyelonephritis
- UTI in Diabetic Patients
- Nosocomial UTI—What Can We Improve?
- Trends in Resistance of Uropathogens: Clinical Relevance

Infectious Diseases Related to Travel

- Emerging versus Traditional Infections and the Traveler
- Prevention and Recognition of STDs
- Meningococcal Disease: Recent Emergence of W135
- Impact of Drug Resistance on Malaria Prophylaxis

Nosocomial Bacteremias in the "South": the Different Scenario Coordinators

- Overview of the "Northern" Knowledge
- Epidemiology of Primary Bacteremias in the "South"
- Risk Factors for Bacteremia
- Preventing Nosocomial Bacteremias: Ten Commandments and More

Controversies in the Management of RTIs

Flu in Pediatrics

HPV and HIV

Diseases of the Developing World

Antibacterials

PHN and Rotavirus

ISID would like to acknowledge the following

SPONSORS

11th International Congress on Infectious Diseases

Aventis Pasteur	Daiichi Pharmaceutical Co., Ltd.
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Chiron Vaccines	Pfizer Inc.
	Wyeth

International Journal of Infectious Diseases

Jonathan Cohen, Editor-in-Chief



Readers of the International Journal of Infectious Diseases will notice that the first issue of 2004 brings with it some small but significant changes. They represent the next important steps in the evolution of the journal that we all hope will make it more interesting, more accessible, and more informative for the readership.

For the next five years, IJID will be published by Elsevier, a large, international, and very experienced academic publisher with extensive interests in infectious diseases. The most important change to result from this will be increased electronic accessibility. Alongside ready and convenient access to the electronic version of IJID, we will soon be able to offer both readers and referees full on-line submission and reviewing facilities, as well as hot-links to other electronic resources such as ProMED, the International Society for Infectious Diseases' global outbreak alert system.

Perhaps even more important is the decision to increase the frequency of publication to six times a year. This key step is a reflection of the increasing number of high-quality manuscripts that we are receiving, and the recognition that authors and readers need papers to be turned around more quickly to shorten the time to publication. With the electronic resources now at our disposal, papers accepted for publication and in press will immediately be posted on Elsevier's ScienceDirect website, making them available to the world's scientific community even more quickly.

The ethos of the *IJID* will remain unchanged as a truly international journal with a readership that spans the continents and an interest in clinical and epidemiological aspects of infection. We hope these developments will encourage you to continue to send us your manuscripts. *IJID* is an excellent way to reach the global community of practicing physicians, pediatricians and epidemiologists as well as research scientists working in infection—now your papers will reach that community more quickly. We look forward to receiving your papers and hope that you will find the *IJID* a valuable resource in your work.

IJID publishes: **ProMED update** digest of highlights and recent topics ~ **Original articles** especially those that discuss epidemiological aspects of international health, clinical reports, clinical trials, and laboratory investigations ~ **Reviews** both solicited and submitted ~ **Perspectives** papers advancing a hypothesis or representing an opinion on a topic of current interest ~ **Book reviews** ~ **Correspondence** including case reports. ❖

ISID would like to acknowledge the following

COOPERATING ORGANIZATIONS

11th International Congress on Infectious Diseases

Mexican Association of Infectious Diseases and Clinical Microbiology

Mexican Association for the Study and Control of Nosocomial Infections

National Academy of Medicine of Mexico

Pan American Association of Infectious Diseases (API)

European Society of Clinical Microbiology and Infectious Diseases (ESCMID)

Mexican Institute of Services and Social Security for Governmental Workers

Joint United Nations Programme on HIV/AIDS (UNAIDS)

Universidad Nacional Autónoma de México, Facultad de Medicina

World Health Organization

Confirmed Speakers (October 2003)

Mendoza Aurorita,
Switzerland

Mira Jean-Paul, France

Molyneux Elizabeth, Malawi

Murray Barbara, USA

Nicolle Lindsay, Canada

Odio Carla, Costa Rica

Onderdonk Andrew, USA

Opal Steven, USA

Palmer Guy, USA

Peltola Heikki, Finland

Petersen Lyle, USA

Pier Gerald, USA

Pinner Bob, USA

Ponce de León Samuel,
Mexico

Poole Keith, Canada

Rangel-Fraustro Sigfrido,
Mexico

Raoult Didier, France

Rappuoli Rino, Italy

Riley Tom, Australia

Roehrig John, USA

Roine Irmeli, Chile

Ronald Allan, Canada

Rossolini Gian Maria, Italy

Rothman Alan, USA

Schechter Mauro, Brazil

Seto WH, China

Smith Geoffrey,
United Kingdom

Steffen Robert, Switzerland

Stewart Phil, USA

Stohr Klaus, Switzerland

Sun Wellington, USA

Taylor Mark, United Kingdom

Topley Nick, Wales,
United Kingdom

Torres Jaime, Venezuela

Tzianabos Arthur, USA

Uhlen Mathias, Sweden

Vegas Armando, Venezuela

Wagenlehner Florian,
Germany

Waldvogel Francis,
Switzerland

Wellems Tom, USA

Wenzel Richard, USA

Whitney Cynthia, USA

Widmer Andreas, Switzerland

Zimmerli Werner, Switzerland



Swiss Society of
Infectious Diseases



SSI/ISID Fellowship Program

ISID and the Swiss Society for Infectious Diseases are actively soliciting applicants for the 2004 SSI/ISID Fellowship Program. The purpose of this one-year Fellowship Program is to support infectious disease physicians and scientists from developing countries through multidisciplinary clinical and laboratory training at select biomedical institutions in Switzerland. The objectives of the Fellowship Program are:

- to train promising young physicians and scientists from developing countries for clinical and research positions in infectious diseases,
- to foster partnerships between Fellows and infectious disease leaders in Switzerland, and
- to increase scientific research capacity in countries with low-income and a high disease burden.

Opportunities for training and research in a variety of areas ranging from basic studies of the mechanism of disease to studies in public health, epidemiology, diagnostics, therapeutics and vaccine development are available through this program. SSI/ISID Fellows will be placed at one of six collaborating research centers in Switzerland according to technical interests and skills. All infectious diseases programs offer experience in clinical infectious diseases, including HIV, and microbiology. The technical research interests at each site include:

Bern: Meningitis. Brain injury in CNS infection. Molecular pathogenesis of respiratory pathogens. Epidemiology and resistance of *pneumococcus*.

Geneva: Foreign body infections, in particular by *staphylococci*. Genomics, molecular biology, and pathogenicity of *S. aureus*. Hospital hygiene and epidemiology. Clinical trials in HIV infection, in particular intermittent therapy and primary HIV infection.

Lausanne: Mechanisms of antibiotic resistance. Molecular pathogenesis of endocarditis. Cytokines and sepsis. Resistance, pharmaco-epidemiology, and therapeutic drug monitoring in HIV infections. Molecular epidemiology of nosocomial infections. Antibiotic use.

Basel: Hospital hygiene and epidemiology. HIV: Pathogenesis of lipodystrophy, reservoirs, HHV8.

Zurich: Clinical trials in HIV. Molecular biology of HIV, latent reservoirs, and anti-HIV immune response. HIV epidemiology. Intestinal infections. Zoonotic infections. Hospital epidemiology.

St. Gallen: Sexual transmission of HIV.

The program is open to applicants who are citizens or permanent residents of developing countries or Eastern Europe. Applicants should have a M.D. or a Ph.D in a relevant field and should hold a position at a medical, research, or public health institution. An endorsement by the home institution is required for participation in the program. The applicant must be fluent in either French or German.

Further information about the SSI/ISID Fellowship Program are posted on the ISID web site: <http://www.isid.org>. ❖



Comments from HIV/AIDS Training Program at the National Institutes of Health • April 2003

The ISID-HIV/AIDS Training Program at the National Institutes of Health in Bethesda, Maryland was reviewed enthusiastically by the participants from Brazil, Cameroon, India, and Ethiopia. They commented on how they thought they would use the knowledge they gained through the training in their current work and on the ways the training impacted their ability to care for HIV-infected patients. ❖

The training will help me make better choices for my patients' care, and I will be able to give them new perspectives for the future (patients are always asking about what is going on with AIDS in the world). Indirectly because I am responsible for teaching medical students and residents in my hospital and I am planning to use this course to share my experience with all of them and with other physicians involved in AIDS treatment.

In clinical management I work with outpatients and admitted patients. I am part of the PEP program in my setting. My ability has greatly improved.

This training has definitely improved my outlook and has given me more confidence to pursue my work in this field. It has enabled me to get a chance to see, hear, and experience 'quality practice.'

Knowledge in differential diagnosis will enable me to consider alternative possibilities. Management of ARV was useful. I have some research ideas from the training that I will investigate on my return.

ISID Small Grants Program Final Report

by Day-Yu Chao

Possible Correlation Between Viral Quasispecies and Disease Severity Through Transmission During Dengue Hemorrhagic Fever Epidemic in 1998-99 in Tainan, Taiwan

Dengue virus is a single-stranded positive-sense RNA flavivirus that is transmitted by mosquitoes to human hosts. Since dengue hemorrhagic fever (DHF) cases cluster more frequently in families with dengue fever (DF) cases, we hypothesized that intense transmission of dengue virus within a closed environment (i.e., within a family) may drive the emergence of a DEN-3 subvariant with higher replication ability and virulence among quasispecies. Three family clusters were selected based on the presence of DF and DHF patients in the same family, and where the duration of disease onset between DF and DHF patients in the same family was between 3 and 10 days. The PCR products from the potential heterogeneous regions (including C-PrM, E, NS3, and NS5) of the RNA from DEN-3 viruses isolates from patients in three family clusters were ligated with the T/A cloning vector, and PCRII-TOPO was used to transform to *E. coli* TOP10 competent cells. Twenty to thirty recombinant clones were randomly selected, completely sequenced, and aligned. Hamming distance and p-distance were used to analyze sequence diversity.

Our results showed that non-structural proteins such as NS3 and NS5 had less sequence diversity than structural proteins such as capsid or envelope proteins (the ranges of mean p-distance in amino acids for NS3, NS5, C-PrM, and E were 0.001639-0.005662, 0.00348-0.006818, 0.004001-0.006671, and 0.004316-0.00761, respectively). Interestingly, there was a consistent increase in nucleotide sequence diversity in the envelope region among the three family clusters from 2.3, 2.5, 3.0 in the first case to 4.8, 4.0, 3.3 in the second case in each family cluster. The percentage of identical clones decreased from the first case in each family cluster (23%, 38%, 30%) to the second

case in each family cluster (0%, 13%, 17%). This pattern was correlated with viral load in each case.

The envelope gene that we sequenced in this study covered 276 amino acids spanning portions of domain I and II and the full length of domain III. There was consistently higher mean amino acid p-distance (0.8-1.4) and ratio of dN/dS (0.5-2.6) in domain I than in either domain II (p-distance: 0.4-0.8; dN/dS ratio: 0.4-1) or III (p-distance: 0.2-0.8; dN/dS ratio: 0-1.9), reaching statistical significance ($p < 0.001$). Also, the nucleotide sequence diversity of the envelope gene dropped from 2.46 to 1.7 when the virus stock of patient #368 was inoculated into mosquitoes, and the number of identical clones also increased from 15% to 31%.

A question increasingly raised by dengue pandemics over the last 20 years is whether distribution of quasispecies of dengue viruses might serve as a reservoir of numerous virus variants, with diversity "waiting" to be selected under certain ecological circumstances through chains of transmission. Our studies confirm that certain viral quasispecies under specific conditions (i.e., high viremia under intense transmission) may increase in virulence and cause more severe disease. However, sequence diversity decreased when the viruses replicated in the mosquito after intrathoracic infection. The higher selection pressure (exerted more strongly in the mammalian cells than in mosquito cells and on domain I than in either domain II or III) indicated that the virus-host interaction played an important role in DHF pathogenesis. These results suggest the need for further studies on the mechanism underlying the pathogenesis of DHF, particularly the chain of transmission and the complex interaction between dengue virus evolution and host factors.

Thanks to the ISID for the wonderful sponsorship of my research. ❖



Day-Yu Chao graduated from Department of Epidemiology, National Taiwan University, Taiwan and is now working as postdoctoral fellow at CDC, Fort Collins, Colorado USA.

ProMED Mail News

Larry Madoff, M.D., Editor, ProMED-mail



Nilufar Rakhmanova

I want to introduce Nilufar Rakhmanova, who is our new Russian-language translator and Moderator for the Newly Independent States. Nilufar is a medical doctor originally from Samarkand, Uzbekistan. Shortly after receiving her MD from Samarkand State Medical Institute and working in the ICU there, she came to Boston University on an Edmund Muskie fellowship and received her MPH. While in Boston this past summer, we were fortunate to have Nilufar work with us as an intern on the development of Russian-language capacity for ProMED. She has now returned to Uzbekistan and will be working with an NGO in Tashkent. She has an interest in multi-drug resistant TB. In addition to English, Nilufar speaks Russian, Tajik/Persian, and Uzbek.

ProMED/ISID has recently received pilot funding from the Nuclear Threat Initiative to develop a Russian-language ProMED service that will focus on the Newly Independent States. Nilufar will work as a rapporteur/translator to provide us with information from Russian-language sources. In addition, Nilufar will work with us to develop collaborations with groups in the NIS, to help ProMED develop its Russian-language capacity, and to begin to develop ProMED-RUS, our Russian language service.

Please join me in welcoming Nilufar. ❖

ProMED-mail

6 issues in 2004!



As the official publication of the ISID, the *IJID* invites members to submit their papers to the Journal. From 2004 the Journal will support electronic article-by-article publication, and all published papers will appear online, in ScienceDirect, from as little as two weeks after corrected proofs are sent back to the Publisher.

The Journal aims to provide a source of information relevant to professionals involved in the epidemiology, clinical diagnosis, treatment and control of infectious diseases, with particular emphasis placed on those diseases which are most common in less-developed countries.

IJID publishes original clinical and laboratory-based research, reports of clinical trials and reviews.

intl.elsevierhealth.com/journals/ijid

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