

Second HIV Infection and the Central Nervous System:
Developed and Resource-Limited Settings

Evolving Mechanisms of HIV Neuropathogenesis
in the HAART Era:
Domestic and Global Issues



Venice - San Servolo Island
ITALY

April 14 • 16, 2007

Sotto l'ALTO PATRONATO del PRESIDENTE DELLA REPUBBLICA

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Presentation

Neurological manifestations, including HIV-dementia and opportunistic infections and tumors are among the most threatening complications of HIV infection. Although their incidence has dramatically decreased among people who have access to combination antiretroviral treatments, this is not the case in most areas of the world, where access is limited or denied. On the other hand, new neurological problems are being observed in countries where treatments are available, related to both changes in the natural history of old diseases as well as emergence of novel entities.

This meeting has the objectives of updating and discussing on current issues related to neurological complications of HIV infection in a worldwide perspective and the most recent concepts and findings of HIV neuropathogenesis.

official web site
<http://synapse.neurology.unc.edu/venice/>

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APRIL 14 • SATURDAY

Second HIV Infection and the Central Nervous System: Developed and Resource-Limited Settings

9.00 am Welcome and Introduction
A. Lazzarin (Milan, Italy) · *L. Pellegrini* (Rome, Italy)

SESSION 1

Treatment Implementation in Resource-Limited Settings

Chair: L. Minoli (Pavia, Italy) · *K. Robertson* (Chapel Hill, USA)

- 9:30 am **Lecture: Evolving Changes in Treatment Implementation in Resource Poor Countries**
S.S. Abdool Karim (Congella, South Africa)
- 10:00 am **Antiretroviral Therapy Administration and Adherence**
D. Bangsberg (San Francisco, USA)
- 10:20 am **Laboratory Monitoring of HIV Infection and Efficacy of Antiretroviral Treatment**
E.M. Dax (Victoria, Australia)
- 10:40 am **Pharmacoeconomics and Antiretroviral Therapy Rollout in Brazil**
A. Penalva de Oliveira (San Paolo, Brazil)
- 11:00 am **Pharmacoeconomics and Antiretroviral Therapy Rollout in Africa**
C. Merry (Dublin, Ireland)
- 11:20 am BREAK

SESSION 2

Epidemiology of HIV-Associated Central Nervous System (CNS) Disease in Resource-Limited Settings

Chair: V. Colizzi (Rome, Italy) · *J.M. Mirò Meda* (Barcelona, Spain)

- 11:40 am **Lecture: Global Epidemiology of HIV Infection and AIDS**
G. Rezza (Rome, Italy)
- 12:00 pm **Epidemiology of HIV CNS Disease in Sub-Saharan Africa**
J. Hakim (Harare, Zimbabwe)
- 12:20 pm **Epidemiology of HIV CNS Disease in Brazil and South America**
J. Vidal (San Paolo, Brazil)
- 12:40 pm **Epidemiology of HIV CNS Disease in India**
M. Gathe (Pune, India)
- 1:00 pm **Antiretroviral Therapy Rollout in China**
F.J. Zhang (Beijing, China)
- 1:20 pm LUNCH

SESSION 3

Clinical Issues of HIV-Related Central Nervous System Disease in Resource-Limited Settings

Chair: E. Ekong (Lagos, Nigeria) · E. Wright (Melbourne, Australia)

2:20 pm **HIV Dementia and Cognitive Impairment in Resource-Limited Settings**
N. Sacktor (Baltimore, USA)

2:40 pm **Central Nervous System Tuberculosis**
G.E. Thwaites (Ho Chi Min City, Vietnam)

3:00 pm **HIV, the Central Nervous System and Stroke**
J. Heikinheimo-Connel Terttu (Blantyre, Malawi)

3:20 pm **HIV and Microbial Coinfections in the Central Nervous System**
S. de Almeida (Curitiba, Brazil)

3:40 pm BREAK AND POSTER VIEWING

4:00 pm **OPEN PRESENTATIONS**
Chair: P. Ferrante (Milan, Italy) · V. Tozzi (Rome, Italy)

4:00 pm **Cerebral Toxoplasmosis in Jakarta**
D. Imran, H. Khosama, J. Jannis (Jakarta, Indonesia)

4:15 pm **Associated Factors to In-Hospital Mortality and Long-term Survival in Brazilian HIV-Infected Patients with Tuberculous Meningitis in the HAART Era**
M.G. Croda, J.E. Vidal, A.C. Penalva de Oliveira (San Paolo, Brazil)

4:30 pm **Coinfection with Human T-Cell Lymphotropic Virus and Human Immunodeficiency Virus: Preliminary Results from a Large Cohort in Rio de Janeiro, Brazil**
M.T.T. Silva, M.J. Andrada-Serpa, E.B. Braga, D.P. Campos, H. Hojas, B. Grinsztejn, R.C. Harab, M.S. Oliveira, A.C.C. Leite, M.A. Lima, A. Araujo (Rio de Janeiro, Brazil)

4:45 pm **Tropical Spastic Paraparesis/HTLV-II-Associated Myelopathy (TSP/HAM) among HIV-1/HTLV-II-Coinfected Subjects in São Paulo City**
P. Montanheiro, I. Olah, L.M.I. Fukumori, M.P. Vergara, J. Smid, A.C. Penalva de Oliveira, A.J.S. Duarte, J. Casseb (San Paolo, Brazil)

5:00 pm **Impact of Access to Care on the Neurodevelopment of HIV-Infected Children in a Resource Poor African Setting**
A. Van Rie, A. Mupuala, A. Dow, N. Kilese, I. Zephyrin, N. Nossa (Chapel Hill, USA and Kinshasa, Democratic Republic of Congo)

SPECIAL SESSION

Institutional Programs for International HIV/AIDS Research
Chair: F. Castelli (Brescia, Italy) · J. Joseph (Bethesda, USA)

5:20 pm **International Programs on HIV Infection at Fogarty International Center**
J. McDermott (Bethesda, USA)

5:40 pm **Added Value of International Cooperation in AIDS and Emerging Infectious Diseases**
G. Ippolito (Rome, Italy)

APRIL 15 • SUNDAY

SESSION 4

Clinical Issues of NeuroAIDS in Developed Areas

Chair: *K. Khalili* (Philadelphia, USA) · *E. Marchioni* (Pavia, Italy)

- 8:30 am **Overview on Opportunistic Infections of the Central Nervous System**
A. Ammassari (Rome, Italy)
- 9:00 am **Cryptococcosis of the Central Nervous System: Classical and Immune-Reconstitution Disease**
S. Sungkanuparph (Bangkok, Thailand)
- 9:20 am **The Pathology of Central Nervous System Immune Reconstitution Disease**
F. Gray (Paris, France)
- 9:40 am **Central Nervous System Immune Reconstitution: Role of Magnetic Resonance Imaging in Diseases Definition**
S. Gerevini (Milan, Italy)
- 10:00 am **Potential Mechanisms of Central Nervous System Immune Reconstitution Disease**
A. Nath (Baltimore, USA)
- 10:20 am BREAK AND POSTER VIEWING

Round Table

The Known Unknowns of Progressive Multifocal Leukoencephalopathy (PML)

Chair: *P. Cinque* (Milan, Italy) · *D. Clifford* (St. Louis, USA)

- 10:40 am **Virus-Host Relationship in PML**
K. Khalili (Philadelphia, USA)
- 11:10 am **New Pathogenetic Models for PML**
I.J. Koralnik (Boston, USA)
- 11:40 am **Molecular Characterization of JC Virus Genome in Cerebrospinal Fluid of PML Patients**
S. Delbue, E. Branchetti, R. Maserati, E. Marchioni, E. Tavazzi, P. Ferrante (Milan, Italy)
- 12:00 am **Predictors of Outcome in Immune-Reconstitution PML and PML Occurring in HAART-Untreated Patients**
A.M. Pazzi, P. Costenaro, S. Casari, A. Boschini, D. Bertelli, C. Mussini, S. Sala, A. Bestetti, S. Bossolasco, A. Lazzarin, P. Cinque (Milan, Italy)
- 12:20 am DISCUSSION
- 12:40 pm LUNCH
- 1:40 pm POSTER VIEWING

SESSION 5

HIV, the CNS and Antiretroviral Treatment - Part I

Chair: C.F. Perno (Rome, Italy) · R.W. Price (San Francisco, USA)

2:30 pm **HIV Infection and the Effects of Antiretroviral Drugs in Macrophages**

K. Williams (Boston, USA)

2:50 pm **Central Nervous System Involvement in Primary HIV Infection**

S. Spudich (San Francisco, USA)

3:10 pm **Virus Compartmentalization and Trafficking through the Central Nervous System**

G. Shnell (Chapel Hill, USA)

3:30 pm BREAK AND POSTER VIEWING

HIV, the CNS and Antiretroviral Treatment - Part II

Chair: G. Arendt (Dusseldorf, Germany) · C. Hall (Chapel Hill, USA)

4:00 pm **Sub-Clinical Atherosclerosis and Risk of Cerebrovascular Disease**

J.S. Currier (Los Angeles, USA)

4:20 pm **Neuropenetration and Efficacy of Antiretroviral Therapy in the Central Nervous System**

S. Letendre (San Diego, USA)

4:40 pm **Immune Activation and the Disproportionate Effect of Antiretroviral Treatment on Cerebrospinal Fluid HIV**

R.W. Price (San Francisco, USA)

5:00 pm **Closing Remarks**

A. Antinori (Rome, Italy)

P. Cinque (Milan, Italy)

APRIL 16 • MONDAY

Evolving Mechanisms of HIV Neuropathogenesis in the HAART Era: Domestic and Global Issues

8:00 am Welcome and Introduction
J. Joseph (Bethesda, USA)

8:10 am **Plenary Talk: The Changing Phenotype of HIV Dementia in the HAART Era: Potential Mechanisms**
J. McArthur (Baltimore, USA)

SESSION 1

Mechanisms of Neuropathogenesis - Part I

Chair: I. Grant (San Diego, USA)

8:40 am **The Shifting Patterns of HIV Encephalitis Neuropathology**
E. Masliah (San Diego, USA)

9:00 am **HIV Infection and Dementia in Older Adults: Overview**
V. Valcour (Honolulu, USA)

9:20 am **Brain Deposition of Beta-Amyloid in HIV Positive Patients**
C. Achim (Pittsburgh, USA)

9:40 am **HIV Hijacks the Proteasome: Implications for Altered Synaptic Transmission**
B. Gelman (Galveston, USA)

10:00 am **Interferon-Induced Expression of Sialoadhesin on Monocytes Enhances HIV-1 Infectivity**
L. Pulliam (San Francisco, USA)

10:20 am BREAK

SESSION 2

Viral and Host Genetics

Chair: J. Berman (Bronx, USA)

10:50 am **HIV Env Variants and Association with Brain Infection and Dementia**
D. Gabuzda (Boston, USA)

11:10 am **Host Genetic Factors Regulating HIV-CNS Disease**
S. Ahuja (San Antonio, USA)

11:30 am **Global Clade Diversity and HIV-CNS Disease: Overview**
R. Ellis (San Diego, USA)

11:50 am **Subtype-Specific Differences in HIV Associated Dementia: Delineating the Viral Determinants**
V. Prasad (Bronx, USA)

12:10 pm **HIV LTR Regulation across the Clades: Global Relevance to NeuroAIDS**
B. Wigdahl (Philadelphia, USA)

12:30 pm WORKING LUNCH

LAUNCHING OF WEST AFRICA NEUROAIDS CONSORTIUM

Panel discussion to assess opportunities to study impact of regional clade diversity of HIV-1 and high prevalence of HIV-2 in West Africa on neuropathogenesis

Chair: *D. Clifford* (St. Louis, USA)

V. Prasad (Bronx, USA)

A. Abimiku (Baltimore, USA)

E. Ekong (Lagos, Nigeria)

J. Idoko (Jos, Nigeria)

A. Jaye (Banjul, Gambia)

A. Gallo-Diop (Dakar, Senegal)

A. Ogunniyi (Ibadan, Nigeria)

O. Nash (Ibadan, Nigeria)

A. Nath (Baltimore, USA)

K. Robertson (Chapel Hill, USA)

G. Kanmogne (Omaha, USA)

SESSION 3

Mechanisms of Neuropathogenesis - Part II

Chair: *A. Nath* (Baltimore, USA)

2:30 pm **Novel Cerebrospinal Fluid Biomarkers in the HAART Era**
M. Gisslen (Goteborg, Sweden)

2:50 pm **Neuroimaging of Evolving White Matter Damage: Effects on Cognition in HIV and Hepatitis C Virus**
T. Jernigan (San Diego, USA)

3:10 pm **Mechanisms of Hepatitis C Virus Associated Neurocognitive Impairment**
T. Laskus (Phoenix, USA)

3:30 pm **Mitochondrial Haplogroups and Peripheral Neuropathy during Antiretroviral Therapy**
D. Haas (Nashville, USA)

3:50 pm **Host Response and Dysfunction in Central Nervous System during Chronic Simian Immunodeficiency Infection**
H. Fox (La Jolla, USA)

4:10 pm BREAK

4:30 pm DISCUSSION: **Priorities for Future Research**
Chair: *I. Grant* (San Diego, USA)

5:30 pm **Closing Remarks**
J. Joseph (Bethesda, USA)

General Informations

Congress Venue

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How to reach San Servolo Island

FROM MARCO POLO INTERNATIONAL AIRPORT

Alilaguna waterbus service: motorboats to San Marco

ATVO local buses: blue buses to Piazzale Roma

ACTV local buses (n° 5): orange buses to Piazzale Roma

• From San Marco to San Servolo (From the old town to San Servolo)

Once you are in the historic center of Venice, the island of San Servolo can be reached either by public water transportation or by private water taxi

* **By public water transportation:** public boats n° 20 (hourly boats) from San Zaccaria boat stop (in front of the Londra Palace Hotel, San Marco) to San Servolo Island

* **By water taxi**

You can take a private water taxi directly to your final destination

• From Piazzale Roma to San Servolo

Public boats n°1, n°51, n°41, n°61, n°82 direction Lido, to San Zaccaria boat stop (in front of the Londra Palace Hotel) At San Zaccaria change to line n° 20 to San Servolo Island

FROM SANTA LUCIA TRAIN STATION TO SAN SERVOLO

Venezia Santa Lucia train station is on the Canal Grande.

Public boats n°1, n°51, ° 82 direction Lido, to San Zaccaria boat stop.

At San Zaccaria change to line n° 20 to San Servolo Island

IF YOU REACH VENICE BY CAR

Park in a garage or parking space during your stay.

The last stops in Venice where you can leave your car are called 'Piazzale Roma' and 'Tronchetto'

To reach the privately run Tronchetto parking area, as you come into Venice, follow the signs and turn right before Piazzale Roma, from Ponte della Libertà.

Another solution is to park your car in front of the train station in **Mestre**.

There are frequent trains and buses (ACTV buses n° 2) between Mestre and Piazzale Roma, Venice.

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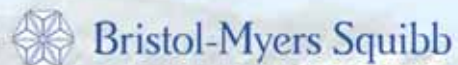
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Accreditation

The request for ECM credits has been forwarded to the Italian Ministry of Health for Italian participants
ECM ref. number: 7461-271683 - No. 13 credits

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