

SEVENTH
INTERNATIONAL
MEETING

on HIV Infection
of the Central
Nervous System

NeuroHIV

Pollenzo - Bra (CN), Italy - Albergo dell'Agenzia

October, 12th-14th 2017

SCIENTIFIC
PROGRAMME

www.neurohiv.com



Il nostro impegno contro l'**HIV**

11A/HIV/0001/17



LA RICERCA

- **Rispondere ai bisogni non soddisfatti** di chi vive con l'HIV in Italia e in tutto il mondo è il nostro obiettivo.
- **Ricerca e innovazione** guidano la nostra strada per sviluppare nuove cure, facilitare l'aderenza ai trattamenti, minimizzare il rischio di resistenze, consentire una gestione più semplice dell'infezione.



LA RESPONSABILITÀ SOCIALE

- Nel mondo con il programma Positive Action sosteniamo oltre **350 progetti per le comunità** collaborando con più di **230 partner**.
- In **Italia** collaboriamo al progetto EPIICAL, consorzio internazionale di ricerca nell'HIV pediatrico, che coinvolge **26 istituzioni accademiche in 4 continenti**.



L'ACCESSO ALLE TERAPIE

- Per favorire l'accesso ai farmaci assicuriamo prezzi preferenziali e not for profit nei Paesi in via di sviluppo.
- Con il programma di licenze volontarie **14 molecole antiretrovirali** possono essere prodotte da aziende locali nelle aree meno sviluppate.



ViiV Healthcare, unica azienda al mondo dedicata al 100% all'HIV

PRESENTATION

The incidence of the most threatening complications of HIV infection (HIV associated dementia) has dramatically decreased among people receiving combination antiretroviral treatments although a new spectrum of neurological and neuropsychiatric problems has emerged as a challenge for the coming years.

In the last years earlier start of the antiretroviral therapy and the more exclusive use of combination including new drugs, integrase inhibitor in particular, with better performances in term of efficacy and toxicity require an update on this topic.

Neurocognitive impairment is one of the main concern, and research studies investigating causes, extent, phenotypes and monitoring are under way. Potential loss of control of HIV replication in the CNS is also of concern because it may be associated with more severe neurological disease.

Why does this occur, how often and how can we recognize it, are also questions waiting for answers. In this regard, particular attention is required when switching from older "neuroprotective" drug combinations to newer therapeutic approaches, including simplified regimens. On the other hand, the potential CNS toxicity of ARV drugs is also emerging as a focus of particular attention. Finally, CNS cells may harbor HIV during systemically controlled infection and serve as potential viral reservoirs that are relevant to systemic approaches to HIV eradication.

The goal of this meeting is to update, discuss and review the concepts on HIV brain infection in the current era, addressing unsolved issues and discussing control strategies for the future.

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SIV-ISV - SOCIETÀ ITALIANA DI VIROLOGIA
ITALIAN SOCIETY FOR VIROLOGY

Scientific Committee

Andrea Antinori
Rome, Italy

Paola Cinque
Milan, Italy

Steven Deeks
San Francisco, USA

Magnus Gisslén
Goteborg, Sweden

Giuseppe Ippolito
Rome, Italy

Adriano Lazzarin
Milan, Italy

Carlo Federico Perno
Rome, Italy

Richard W. Price
San Francisco, USA

Kevin Robertson
Chapel Hill, USA



Day 1 - Thursday, October 12th, 2017

08.30am-09.00am Registration
and Welcome Remarks to the General Meeting



NIMH-sponsored Workshop on Approach to Consortium Studies of CNS HIV Escape

Organizer: **J. Joseph** (Bethesda, USA);

Co-chairs: **S. Spudich** (New Haven, USA);

A. Winston (London, UK)

Participants: **A. Antinori** (Rome, Italy), **P. Cinque** (Milan, Italy),

H. Fox (Omaha, USA), **M. Gisslen** (Goteborg, Sweden),

T. Henrich (San Francisco, USA), **S. Letendre** (San Diego, USA),

D. Persaud (Baltimore, USA), **R.W. Price** (San Francisco, USA)

09.00am- 09.10am Welcome/purpose/goals
J. Joseph (Bethesda, USA)

09.10am-09.25am Concept, rationale, and challenges for coordination
of CSF escape studies across multiple sites
H. Fox (Omaha, USA)

09.25am-09.35am Discussion

CSF escape: Laboratory/clinical definitions for consortium collaboration

9.35am-09.45am HIV RNA definitions of CSF escape
R.W. Price (San Francisco, USA)

09.45am-10.10am Panel discussion and agreement of consensus definitions:
-CSF escape when plasma HIV RNA undetectable
-CSF escape when plasma HIV RNA detectable

10.10am-10.20am Asymptomatic vs symptomatic escape
A. Antinori (Rome, Italy), **P. Cinque** (Milan, Italy)

10.20am-10.45am Panel discussion and agreement of consensus definitions:
-Definition of symptomatic CSF escape
-Definition of asymptomatic CSF escape

10.45am-11.10am **COFFEE BREAK**

Day 1 - Thursday, October 12th, 2017

11.10am-11.20am	CSF escape: Practical issues for consortium studies What clinical & laboratory data are required? <i>M. Gisslen</i> (Goteborg, Sweden), <i>S. Letendre</i> (San Diego, USA)
11.20am-11.45am	Panel discussion and agreement on essential clinical and laboratory details -HIV factors and ART factors -Co-morbidities and co-infections -HIV RNA data, antiretroviral drug resistance data -Other biomarkers
11.45am-11.55am	Integrating CSF studies in HIV persistence & eradication studies: clinical and laboratory implications <i>T. Henrich</i> (San Francisco, USA), <i>D. Persaud</i> (Baltimore, USA)
11.55am-12.20pm	Questions for panel discussion: - What are the barriers/challenges to studying CSF in HIV curative trials (adults and children)? - What information can be gained from in depth study of CSF in the setting of HIV eradication efforts? - How do we centralize or standardize CSF testing? - What novel studies can be applied to future or stored CSF samples or neuropsychiatric testing?
12.20pm-01.00pm	GROUP DISCUSSION/CONSENSUS FOR DEFINITIONS AND PRACTICAL ISSUES • <i>S. Spudich</i> (New Haven, USA); <i>A. Winston</i> (London, UK) • <i>Review of all the agreed criteria and definitions</i>
01.00pm-01.30pm	Discussion
01.30pm-02.30pm	LUNCH

Day I - Thursday, October 12th, 2017

02.00pm-02.30pm Registration

SESSION I - Mechanisms and biomarkers of CNS HIV Infection

Welcome remarks and chair: **G. Ippolito** (Rome, Italy), **A. Lazzarin** (Milan, Italy)

02.30pm-03.00pm Myeloid cells in CNS infection: traffic and replication
G. Poli (Milan, Italy)

03.00pm-03.30pm CNS viral and cell dynamics in the humanized mouse model
V. Garcia (Chapel Hill, USA)

03.30pm-04.00pm Systemic-CNS viral dynamics in a simian HIV-1 infection
V. Hirsch (Rockville, USA)

04.00pm-04.30pm Systemic-CNS viral dynamics in a human HIV-1 infection
R. Swanstrom (Chapel Hill, USA)

Discussion

04.30pm-05.00pm **COFFEE BREAK**

Chairpersons: **F. Maggiolo** (Bergamo, Italy), **C. Mussini** (Modena, Italy)

05.00pm-05.30pm Cerebrospinal fluid biomarkers
M. Gisslen (Goteborg, Sweden)

05.30pm-06.00pm Imaging the ageing HIV brain
J. Cole (London, UK)

Discussion

Chairpersons: **A. Cingolani** (Rome, Italy), **R. Maserati** (Pavia, Italy)

06.00pm-07.00pm **POSTER SESSION**

8

08.00pm

DINNER

Day 2 - Friday, October 13th, 2017

SESSION 2 - CNS HIV Treatment: 1. Effects of ART on early CNS infection

Chairpersons: **B.M. Celesia** (Catania, Italy), **A. Di Biagio** (Genoa, Italy)

- 09.00am-09.30am Current neurological problems and their trend over the last years
A. Antinori (Rome, Italy)
- 09.30am-10.00am Impact of early treatment on viral persistence and inflammation
S. Spudich (New Haven, USA)
- 10.00am-10.30am Impact of early treatment on neurocognitive function
K. Robertson (Chapel Hill, USA)
- Discussion
- 10.30am-11.00am **COFFEE BREAK**

SESSION 3 - CNS HIV Treatment: 2. Effects of ART on treated CNS infection

Chairpersons: **S. Bonora** (Turin, Italy), **A. De Luca** (Siena, Italy)

- 11.00am-11.30am PK and efficacy of new ARV drugs
A. Yilmaz (Goteborg, Sweden)
- 11.30am-12.00pm Relevance of ART neuropenetration of importance - review of evidence pro/con
S. Letendre (San Diego, USA)
- 12.00pm-12.30pm CNS drug toxicities
E. Martinez (Barcelona, Spain)
- 12.30pm-01.00pm Neuropsychological performance, imaging and inflammation in ART-treated compared to HIV-negatives
A. Winston (London, UK)
- Discussion
- 01.00pm-02.00pm **LUNCH**

Day 2 - Friday, October 13th, 2017

Chairpersons: **A. Gori** (Milan, Italy), **G. Rizzardini** (Milan, Italy)

02.00pm-02.30pm Asymptomatic CSF HIV escape
A. Calcagno (Turin, Italy)

02.30pm-03.00pm Symptomatic and secondary CSF HIV escape
P. Cinque (Milan, Italy)

03.00pm-03.30pm Brain imaging of CSF HIV escape
S. Gerevini (Milan, Italy)

03.30pm-04.00pm Virological character of CSF HIV escape
S. Joseph (Chapel Hill, USA)

Discussion

04.00pm-04.30pm **COFFEE BREAK**

Chairpersons: **G. Nunnari** (Catania, Italy), **S. Rusconi** (Milan, Italy)

ORAL PRESENTATIONS

04.30pm-04.45pm **OC 01** - HIV-1 GAG COUNTERACTS AN INNATE RESTRICTION BY AMYLOID PRECURSOR PROTEIN RESULTING IN NEURODEGENERATION
Q. Chai, V. Jovasevic, V. Malikov, Y. Sabo, S. Morham, D. Walsh and M.H. Naghavi

04.45pm-05.00pm **OC 02** - HIV-ASSOCIATED CD8 ENCEPHALITIS (CD8E): VARIABLE PRECIPITATORS WITH A NEUROPATHOLOGICAL FINAL COMMON PATHWAY - A UNIFYING HYPOTHESIS
S. Lucas

Day 2 - Friday, October 13th, 2017

- 05.00pm-05.15pm **OC 03** - CSF LEVELS OF THE GLIAL MARKER YKL-40 ARE STRONGLY ASSOCIATED WITH NEURONAL INJURY IN HIV
L. Hermansson, A. Yilmaz, M. Axelsson, K. Blennow, D. Fuchs, L. Hagberg, J. Lycke, H. Zetterberg, M. Gisslén
- 05.15pm-05.30pm **OC 04** - DYNAMICS OF HIV INFECTION IN THE BRAIN
J. Honeycutt, J.V. Garcia
- 05.30pm-05.45pm **OC 05** - PERSISTENCE OF NEUROCOGNITIVE IMPAIRMENT AND Milder FORMS OF HIV-ASSOCIATED NEUROCOGNITIVE DISORDERS (HAND) OVER 20 YEARS IN THE HAART ERA: EVIDENCE FROM ST. MICHAEL'S HOSPITAL NEUROHIV CLINICAL COHORT (TORONTO, CANADA)
S.B. Rourke, R. Rachlis, A. Carvalhal, C. Kovacs, G. Arbess, J. Brunetta, M.J. Gill, L. Cysique, T. Sota, S. Nam, T. Bekele
- 05.45pm-06.00pm **OC 06** - HIV-1 IN THE OLFACTORY MUCOSA OF CHRONICALLY INFECTED PATIENTS: WHERE DOES IT COME FROM?
L.P. Kincer, M. Trunfio, S. CATERA, L. Bertero, V. Pirriatore, T. Alice, D. Imperiale, S. Bonora, A. Calcagno, S.B. Joseph

Chairpersons: **G. Marchetti** (Milan, Italy), **S. Parisi** (Padua, Italy)

06.00pm-07.00pm **POSTER SESSION**

08.00pm **DINNER**

Day 3 - Saturday, October 14th, 2017

SESSION 4 - The CNS reservoir and its role in viral eradication

Chairpersons: **G. Di Perri** (Turin, Italy), **M. Galli** (Milan, Italy)

- 09.00am-09.30am Effect of systemic and CNS inflammation on the CNS and ways to interact
P. Hunt (San Francisco, USA)
- 09.30am-10.00am HIV tat, a pivotal molecule in CNS HIV latency, target for mitigation and biomarker of the CNS reservoir
A. Nath (Bethesda, USA)
- 10.00am-10.30am Models of CNS cure/mitigation in primates
L. Gama (Baltimore, USA)
- Discussion
- 10.30am-11.00am **COFFEE BREAK**

Chairpersons: **A. d'Arminio Monforte** (Milan, Italy), **G. Poli** (Milan, Italy)

- 11.00am-11.30am Systemic HIV persistence, effects on morbidity and mortality and approaches to mitigation and cure
T. Henrich (San Francisco, USA)
- 11.30am-12.00pm HIV Cure research relevant to the CNS
R.W. Price (San Francisco, USA)
- Discussion
- 12.00pm-12.30pm FINAL REMARKS and CME Questionnaire compilation
- 12.30pm-01.00pm **LUNCH**

FACULTY

Andrea Antinori, Rome, Italy

Stefano Bonora, Turin, Italy

Andrea Calcagno, Turin, Italy

Benedetto Maurizio Celesia,
Catania, Italy

Antonella Cingolani, Rome, Italy

Paola Cinque, Milan, Italy

James Cole, London, UK

Antonella d'Arminio Monforte,
Milan, Italy

Andrea De Luca, Siena, Italy

Antonio Di Biagio, Genoa, Italy

Giovanni Di Perri, Turin, Italy

Howard Fox, Omaha, USA

Massimo Galli, Milan, Italy

Lucio Gama, Baltimore, USA

Victor Garcia, Chapel Hill, USA

Simonetta Gerevini, Milan, Italy

Magnus Gisslen, Goteborg, Sweden

Andrea Gori, Milan, Italy

Timothy Henrich, San Francisco, USA

Vanessa Hirsch, Rockville, USA

Peter Hunt, San Francisco, USA

Giuseppe Ippolito, Rome, Italy

Jeymohan Joseph, Bethesda, USA

Sarah Joseph, Chapel Hill, USA

Adriano Lazzarin, Milan, Italy

Scott Lee Letendre, San Diego, USA

Franco Maggiolo, Bergamo, Italy

Giulia Marchetti, Milan, Italy

Esteban Martinez, Barcelona, Spain

Renato Maserati, Pavia, Italy

Cristina Mussini, Modena, Italy

Avi Nath, Bethesda, USA

Giuseppe Nunnari, Catania, Italy

Saverio Parisi, Padua, Italy

Carlo Federico Perno, Rome, Italy

Deborah Persaud, Baltimore, USA

Guido Poli, Milan, Italy

Richard W. Price, San Francisco, USA

Giuliano Rizzardini, Milan, Italy

Kevin Robertson, Chapel Hill, USA

Stefano Rusconi, Milan, Italy

Serena Spudich, New Haven, USA

Ronald Swanstrom, Chapel Hill, USA

Alan Winston, London, UK

Aylin Yilmaz, Goteborg, Sweden

General Informations

CONGRESS VENUE

ALBERGO DELL'AGENZIA

Via Fossano, 21, I2042 Pollenzo CN - Tel: [+39] 0172/458600

ORGANIZING SECRETARIAT



Nadirex International Srl - Via Riviera, 39 27100 Pavia

Tel. +39.0382.525714/35 - Fax +39.0382.525736

info@nadirex.com - www.nadirex.com

CME

The request for CME credits has been forwarded to the Italian Ministry of Health for Italian participants. **Nr. 265-201260 - Nr. 16,5 CME credits**

The Congress is intended for 100 participants.

Physician: *Infectious Diseases - Microbiology and Virology - Neurology - Psychiatry.*

Psychologist: *Psychotherapy - Psychology.*

REGISTRATION

Early Registration before September, 18th

Euro 366,00 (€ 300,00 + 22% VAT)

Late Registration after September, 18th

Euro 427,00 (€ 350,00 + 22% VAT)

Congress registration: www.neurohiv.com

THE REGISTRATION FEE INCLUDES:

- Participation in the scientific work
- Congress kit
- Certificate of attendance
- CME certificate
- Abstract Book
- Coffee breaks and working breakfasts for the whole period
- Thursday October, 12th Dinner
- Friday October, 13th Dinner

CERTIFICATE OF ATTENDANCE

The Certificate of Attendance will be handed at the end of the Meeting to all the participants registered at the desk of the Organizing Secretariat.

SLIDES AND INTERNET POINTS

A computerized projection will be provided by technicians.

Please provide the file of your presentation in electronic format.

All the Congress Presentations will be published on the website prior written authorization by the Speakers.

OFFICIAL LANGUAGE

Official language: English.

Simultaneous translation will not be provided.

General Informations

ORAL COMMUNICATIONS AND POSTERS

The scientific programme of the conference will include Oral Communications and Posters' Sessions and Discussions of Posters. The Abstracts and the type of presentations will be selected by the Scientific Committee.

Abstracts must contain original data, not already presented on other occasions.

Abstracts must be in English and will be published in the Abstract Book.

Abstracts must be submitted exclusively using the on-line form, following the instructions available at www.neurohiv.com.

The Organizing Secretariat will inform the first author on the abstract form, via e-mail, of the acceptance of the work, the format (oral communication or poster) and the date and time of presentation.

Twelve minutes will be allocated for the presentation of each communication, after which there will be a three minutes of discussion.

Size of Posters: 70 cm wide × 100 cm high. The mounting material is available at the display area.

The presence of the Author is required during the poster presentation.

HOW TO SUBMIT THE ABSTRACT

The system will automatically send the notification of successful submission.

If you do not receive the notification, please contact the Organizing Secretariat at info@nadirex.com.

The person that submit the Abstract, must indicate the Presenting Author:

- Submitters and Presenting Author are responsible for the accuracy of all data submitted including correct spelling of names and institutions
- The Submitters must indicate the preferred presentation form (Oral Communication or Poster).

The choice is not binding.

- The Presenting Author will receive all the official communications from the Organizing Secretariat

- The Presenting Author must be registered to the Congress.

Any change must be immediately communicated to the Organizing Secretariat at info@nadirex.com.

In case of acceptance, the Abstract will be published and the Abstract Book will be distributed at the Congress.

DEADLINE FOR ABSTRACT SUBMISSION

September 18th, 2017 - On-line submission.

September 25th, 2017 - Notification of acceptance of abstracts.

How To Reach The Venue

BY CAR

From the A6 Torino-Savona highway Exit at Marene then turn right, following the signs for Bra. Once in Bra, follow the signs for Pollenzo for 4km until arriving in Pollenzo. After the roundabout, take the second right onto Via Carlo Alberto, which leads to Piazza Vittorio Emanuele.

From the A21 Torino-Piacenza highway Exit at Asti-Est then turn right. Follow the signs for Alba-Bra, staying on the tangenziale (ring road) and then the SS231 towards Alba. Follow the signs for Alba-Bra. At the traffic light continue straight on the main road. After passing through Cinzano, turn left at the sign for Pollenzo. At the roundabout continue straight on towards SP7 then after a few hundred meters turn left onto Via Amedeo di Savoia, which leads to Piazza Vittorio Emanuele.

From Bra - From the center follow the signs for Alba. At the bottom of the hill continue until the traffic lights, then turn right for Pollenzo. At the roundabout go straight on, then take the second road on your right (Via Carlo Alberto), which leads to Piazza Vittorio Emanuele.

44°40'54.3"N 7°53'37.9"E

BY TRAIN

The closest train stations are:
S. Vittoria - 3,2 km
Pocapaglia - 3,8 km
Bra - 6,7 km

BY PLANE

The closest airports are:
Cuneo airport (Italy)
Turin airport (Italy)
Nice airport (France)
Milan Malpensa airport (Italy)

TAXI SERVICE 24/7

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REGISTRATION FORM

SEVENTH INTERNATIONAL MEETING HIV INFECTION OF THE CENTRAL NERVOUS SYSTEM

NeuroHIV2017

OCTOBER, 12th-14th 2017

POLLENZO-BRA (CN), ITALY

Fill in using block letters and send
within **October, 11th**

Registration on-line:

www.neurohiv.com

ALL THE FOLLOWING DATA ARE REQUESTED

Name Surname
Profession Discipline
Hospital Address
Postal Code Town/City Province
Tel. Mobile Tel.
Fax E-mail

INVOICE INFORMATION (MANDATORY) - Invoice headed to:

Name/Last name or company name
Address
Postal Code Town/City Province
VAT Number Fiscal Code
Birth date Birth place

REGISTRATION FEES

Early Registration before September, 18th Euro 366,00 (€ 300,00 + 22% VAT)

Late Registration after September, 18th Euro 427,00 (€ 350,00 + 22% VAT)

METHOD OF PAYMENT

Bank transfer headed to Nadirex International S.r.l. - c/o: Banca Ubi Banca - Filiale Pavia Porta Cavour
Cab 11305 - Swift Code: BLOPIT22634 - IBAN: IT48A03111130500000030112

Credit Card: Visa - Master Card - American Express

Card Number CV2 code Expiry date

Credit Card holder Signature

I authorise the use of my personal data in accordance with Legislative Decree 196/2003

Date..... Signature

Notes

A series of horizontal dotted lines for writing notes, overlaid on a background image of a large, multi-story building with a central tower.

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