



**59° CONGRESSO AINPeNC**

**Associazione Italiana**

**Neuropatologia e Neurobiologia Clinica**

**49° CONGRESSO AIRIC**

**Associazione Italiana**

**per la ricerca sull'Invecchiamento Cerebrale**

**23-25 MAGGIO 2024**

**Aula Consiliare, Fiumicino**

## **Congress President**

Francesca R. Fusco

## **AINPeNC Executive Board**

<i>President</i>	Gianluigi Zanusso
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<i>Secretary</i>	Francesca R. Fusco
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	Giuseppe Di Fede
	Gabriella Marcon
	Gianluca Marucci
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<i>President</i>	Gianluigi Forloni
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	Maurizio Gallucci
	Antonio Guaita
	Anna Panaccione
	Elio Scarpini

Thursday, May 23<sup>rd</sup> 2024

**Training course: Artificial intelligence and new technologies**

Chairs: Giovanna Cenacchi (Bologna), Sofia Asioli (Bologna)

- 9.30 Artificial intelligence and practical applications  
Maurizio Gabbrielli (Bologna)
- 10.00 Artificial intelligence in neuropathology  
Valeria Barresi (Verona)
- 10.30 Ethical and jurisdictional aspects of Artificial intelligence and of digital pathology  
Annarita Ricci (Bologna)
- 11.00 Coffee break
- 11.30 Biocompatible and bioabsorbable Scaffolds for regenerative medicine  
Giorgia Imperato (Naples)
- 12.00 Regenerative medicine in central and peripheral nervous system  
Laura Calzà (Bologna)
- 12.30 Regenerative medicine in neuro-muscular disease  
Edoardo Malfatti (Paris, F)
- 13.00 Lunch
- 13.30 Registration
- 14.00 **Congress Opening**  
Chairs: Francesca R. Fusco (Rome), Gianluigi Zanusso (Verona)
- Institutional greeting**  
Prof. Caltagirone - Scientific Director IRCCS Foundation S. Lucia

## **Workshop 1. Neuroimmunology**

Chair: Roberta Magliozzi (Verona)

- 14.30 Autoimmune responses and immunomodulating therapies in Multiple sclerosis and optic neuromyelitis  
Luca Battistini (Rome)
- 14.50 Persistent EB virus infection and altered antiviral immune response in the pathogenesis of Multiple Sclerosis. From evidences to the study of therapeutical strategies  
Barbara Serafini (Rome)
- 15.10 Neuropathological, molecular and clinical correlates in compartmentalized inflammatory response in Multiple Sclerosis  
Roberta Magliozzi (Verona)
- 15.30 **Oral communications**  
Chairs: Roberta Magliozzi (Verona), Luca Battistini (Rome)
- 15.30 Assessment of olfactory swab procedure performed by non-otolaryngologists to improve and simplify human prion disease diagnosis  
M. Bongiani, E. Bronzato, E. Fontana, L. Sacchetto, S. Capaldi, S. Castriciano, F. Silvestri, M.Fiorini, G. Zanusso (Verona, Brescia)
- 15.40 Accelerated cellular senescence in progressive Multiple Sclerosis  
E. Barusolo, D. Papadopoulos, I. Cimignolo, S. Bandiera, L. Probert, R. Reynolds, R. Nicholas (Verona, London UK, Athens, Greece)
- 15.50 Diffusely abnormal white matter substantially contributes to rapid and severe Multiple Sclerosis progression  
B. Bellini, A. Mensi, V. Giunchiglia, N. Ludwig, S. Magon, R. Reynolds, R. Nicholas, S. Monaco, R. Magliozzi (Verona, London UK, Mannheim, Germany, Basel, Switzerland)
- 16.00 Establish a cell culture of human olfactory neuroepithelium collected by nasal swab.  
F. Silvestri, E. Bronzato, V. Arietti, E. Fontana, E. Marazzi, I. Scambi, G. Zanusso, L. Sacchetto, R. Mariotti, M. Bongiani, E. Turano (Verona)

- 16.10 Subtle memory impairment in a pre-symptomatic mouse model of neurodegenerative disease: unveiling early behavioral indicators of memory loss  
E. Rossi, M. De Introna, M. Maio, M. Ammassari-Teule, A. Pignataro (Rome)
- 16.20 Unraveling the contribution of inflammation and mitochondrial dysfunction to AD physiopathology: from inflammaging to cognitive decline  
C. Manco, D. Plantone, M. Pardini, D. Righi, P.A. Ali, D. Arnaldi, V. Pelagotti, F. Massa, M. D'Alessandro, E. Bargagli, N. De Stefano (Siena, Genoa)
- 16.30 Coffee break
- 17.00 **Main Lecture**  
**Molecular Neuropathology of TDP-43 proteinopathies: Similarities and Differences**  
Manuela Neumann (Tubingen, Germany)  
Introduced by Giuseppe Di Fede (Milan)
- 17.45 **Lecture**  
**The archaeological park of Ostia Antica: A treasure chest of memories**  
Alessandro D'Alessio, Director of the archeological park of Ostia Antica  
Introduced by Francesca R. Fusco (Rome)
- 18.45 Welcome reception at Villa Guglielmi

Friday, May 24<sup>th</sup> 2024

**Workshop 2 A new era in neuro-oncology: new diseases, biomarkers and therapeutical strategies in adult diffused gliomas**

Chairs: Gianluca Marucci (Milan), Sofia Asioli (Bologna)

- 8.30 The role of neuropathology: integrated diagnosis  
Luca Bertero (Turin)
- 8.50 The role of advanced molecular analyses: methylation profile  
Evelina Miele (Rome)
- 9.10 The role of neuro-oncology  
Enrico Franceschi (Bologna)
- 9.30 Discussion
- 9.45 **Slide seminar in collaboration with Gruppo Italiano di NeuroPatologia- SIAPEC**  
Chairs: Valeria Barresi (Verona), Manila Antonelli (Rome)
- 9.50 Case 1  
Giuseppe Broggi (Catania)
- 10.05 Case 2  
Sabrina Rossi (Rome)
- 10.20 Case 3  
Francesca Gianni (Rome)
- 10.35 Case 4  
Marcella Callea (Milan)
- 10.50 Discussion
- 11.00 Coffee break

- 11.30 **Oral communications**  
Chairs: Marco Gessi (Rome), P. Luigi Poliani (Milan)
- 11.30 Quality of sleep and cerebrospinal fluid oxysterols in degenerative dementias: correlations and possible implications  
L. Pradotto, L. Priano, S. Cattaldo, R. Cremascoli, E. Prina, A. Milesi, S. Mai, P. Piterà, G. Poli, V. Leoni, A. Mauro (Turin, Milan)
- 11.40 Diffuse gliomas with FGFR3::TACC 3 fusion classification challenges  
A. Pietrantonì, V. Barresi (Brescia, Verona)
- 11.50 Ruta graveolens, but not rutin, inhibits survival, migration, invasion and vasculogenic mimicry of glioblastoma cells  
I. Camerino, P. Franco, A. Bajetto, S. Thellung, A. de Bellis, T. Florio, M.P. Stoppelli, L. Colucci-D'Amato (Caserta, Naples, Genoa, Rome)
- 12.00 Neurologic involvement in cystinosis: focus on brain lesions  
T. Nicoletti, A. Bink, B. Helmchen, N. Briel, K. Frontze, B. Vlad, A. Gaspert, E. Boudriot, H.H. Jung, A.M. Reuss, M. Weller, T. Hortobágyi (Zurich, Switzerland, Essen, Munich, Germany, London UK)
- 12.10 Prognostic value of mammalian target of rapamycin (MTOR) activation in pituitary neuroendocrine tumors (PITNETS)  
A. Pietrantonì, F. Pagani, S. Serìoli, M. Cominelli, F. Doglietto, P.L. Poliani (Brescia, Rome, Milan Hamburg, Germany)
- 12.15 A case of adult posterior fossa ependymoma: PFA, PFB and beyond  
A. d'Amati, S. Minasi, L. Scuccimarri, M. Troia, F.R. Buttarelli, F. Gianno, M. Antonelli (Rome, Bari)
- 12.20 Unlike cisplatin, temozolomide inhibits migration and vasculogenic mimicry of glioblastoma cells  
I. Camerino, P. Franco, M.P. Stoppelli, L. Colucci-D'Amato (Caserta, Naples, Rome)
- 12.25 Circulating miRNA profile in neurofibromatosis type 1: identification of novel biomarkers and related clinical implications  
M.A.B. Melone, M. Dell'Aquila, M. Ravo, G. M. Ventola, G. Marchese, G. Abbadessa, G. Miele, G. Franzese, P. De Blasiis, N.P. Palomba, T. Esposito, S. Sampaolo, G. Puoti, S. Paladino, F. Napolitano (Naples, Baronissi, Potenza, Pozzilli, London UK)
- 12.30 Lunch

**Workshop 3 Neurodegenerative disorders I -  
Update on Amyotrophic Lateral Sclerosis**

Chairs: Gabriella Marcon (Trieste), Gianluigi Zanusso (Verona)

- 13.30 From Charcot's disease to ALS and MND: Names and Things  
Liborio Di Battista (Bari)
- 13.50 Precision medicine in ALS: pathogenesis and therapies  
Adriano Chiò (Turin)
- 14.10 ALS update: animal models and considerations for a translational  
medicine  
Caterina Bendotti (Milan)
- 14.40 ALS and hydrogen sulphide  
Patrizia Longone (Rome)

**Workshop 4 Neurodegenerative disorders II -  
Frontotemporal dementia**

Chairs: Giuseppe Di Fede (Milan), Giorgio Giaccone (Milan)

- 15.00 The genetic landscape of Frontotemporal Dementia  
Giacomina Rossi (Milan)
- 15.20 Frontotemporal dementia: clinical phenotypes/neuroimaging  
pictures  
Dario Saracino (Paris, France)
- 15.40 The neuropathology of Frontotemporal Lobar Degeneration  
Giorgio Giaccone (Milan)
- 16.00 Discussion
- 16.15 Coffee Break

## **Workshop 5 Nutritional neurology: flashing lights, dark shadows, and future perspectives**

*in collaboration with Coordinamento Napoletano Donne della Scienza*  
Chairs: Giovanna Cenacchi (Bologna), Gabriella Marcon (Trieste)

- 16.45 Inborn errors of metabolism in the 21st century: is diet therapy still useful?  
Marina Melone (Naples)
- 17.05 Environmental neurotoxins: what do we know so far?  
Valeria Costantino (Naples)
- 17.25 Nanodelivery of nutraceuticals and drugs in neurological diseases: Synergy at the interface of chemistry-nanotechnology  
Claudia Riccardi (Naples)
- 17.45 Discussion

### **Oral communications**

Chairs: Giovanna Cenacchi (Bologna), Gabriella Marcon (Trieste)

- 18.00 An "in vitro model" of tdp-43 and nos1ap in aging and neurodegeneration  
M. G. Bibbò, J. Gimenez, F. Ciaiola, S. De Stefano, E. Buratti, A. Spalloni, P. Longone (Rome, Trieste)
- 18.10 Hydrogen sulphide as regulator of neurodegeneration by guiding microglia phenotype in mouse spinal cord cultures  
S. De Stefano, F. Ciaiola, M. Tiberi, G. Borsellino, M. De Bardi, N. B Mercuri, V. Chiurchiù, A. Spalloni, P. Longone (Rome)
- 18.20 Detection of tdp-43 seeding activity in the olfactory mucosa from patients with frontotemporal dementia  
E. Fontana, M. Bongianni, A. Benussi, E. Bronzato, C. Scialo, L. Sacchetto, A. Cagnin, S. Castriciano, E. Buratti, F. Gardoni, M. Italia, A. Schreiber, C. Ferracin, M. Fiorini, K.L. Newell, L. Cracco, H. J. Garringer, M.P. Cecchini, M. Polymenidou, A. Padovani, S. Monaco, G. Legname, B. Ghetti, B. Borroni, G. Zanusso (Verona, Brescia, Padua, Trieste, Milan, Zurich Switzerland, Indiana, USA)
- 18.30 basal metabolism, myokine levels and disease severity in Amyotrophic Lateral Sclerosis  
M. Goglia, E. Frezza, G. Greco, F. Gruosso, G. Vietri, I. Petitta, G. Nardino, M. Nuccetelli, L. Boffa, A. De Lorenzo, R. Massa (Rome)
- 18.40 Compensatory mechanisms sustain system consolidation of memory in pre-symptomatic mouse model of neurodegenerative disease  
A. Pignataro, M. De Intronà, E. Rossi, M. Maio, L. Pietrosanti, E.C. Latagliata, S. Middei, M. Ammassari-Teule (Rome)

- 18.50      Striatal neuroprotection by a combination of  
Methylsulfonylmethane and Resveratrol in the R6/2 mouse model  
of Huntington's disease  
E. Paldino, C. Giampà, F.R. Fusco (Rome)
- 19.00      Modulation of the inflammasome by resveratrol and  
Methylsulfonylmethane in the R6/2 mouse model of Huntington's  
disease  
E. Paldino, G. Migliorato, F.R. Fusco (Rome)
- 19.10      Assembly of the association with greetings of EURO CNS
- 20.30      Social dinner

Saturday, May 25<sup>th</sup> 2024

**Oral communications**

Chairs: Gianluigi Forloni (Milan), Marina Melone (Naples)

- 8.30 PMCA optimization for the detection of prions in blood and urine of Fatal Familial Insomnia patients  
F. Bellandi, G. Bufano, B.M. Bacinoglu, F.A. Cazzaniga, H. Eraña, J.M. Charco, J. Castilla, R. Chiesa, F. Fabio Moda (Milan, Derio, Madrid, Spain)
- 8.40 Primary skin fibroblasts as a model to study the neurodegenerative disease progressive supranuclear palsy  
F. Ciaiola, R. De Mori, S. De Stefano, J. Gimenez, M. G. Bibbò, V. Nesci, C. Valle, A. Ferri, M. De Bardi, G. Borsellino, L. Pieroni, A. Spalloni, N. B. Mercuri, T. Schirinzi, P. Longone (Rome)
- 8.50 Biomarkers of resilience in neurodegenerative diseases: insights from clinical and animal studies  
M. De Intron, A. Pignataro, N. Banaj, M. Ammassari-Teule (Rome)
- 9.00 Neural cortical organoids derived from induced pluripotent stem cells as a model to study neurotoxicity in ischemic brain injury  
M. De Paola, D. Comolli, F. Pisciotta, I. Lisi, M. Cerovic, S. Fumagalli, E. R. Zanier, G. Forloni (Milan)
- 9.10 A Treviso dementia (TREDEM) registry clinical case showing a frontotemporal phenotype with genetic and electron microscopy evidences of CADASIL  
M. Gallucci, C. Spadari, C. Da Ronch, M. Bendini, V. Fiore, G. Zanusso, M. Ferrarini, G. M. Fabrizi, S. Rizzo, P. Tiraboschi (Treviso, Verona, Padua, Milan)
- 9.20 Microglial senescence and activation in healthy aging and alzheimer's disease: systematic review and neuropathological scoring  
A. Malvaso, A. Gatti, G. Negro, C. Calatozzolo, A. Guaita, M. Ceroni, V. Medici, T.E. Poloni (Pavia, Milano, Novara, Abbiategrosso)
- 9.30 A promising dna aptamer-based approach for restoring dysfunctional mitochondrial pathway in Huntington's disease  
M.A.B. Melone, D. Fasano, L. De Rosa, A. Ruocco, V. Valente, C. Riccardi, F. D'Aria, F.A. Digilio, M.R. Carillo, J. Amato, D. Montesarchio, C. Giancola, G.M. Pierantoni, G. Puoti, S. Paladino (Naples, Philadelphia USA)

## **Workshop 6 - Brain aging and dementia: physiological and pathological events**

Chairs: Gianluigi Forloni (Milan), Marina Melone (Naples)

- 9.40 Presenilin mutations in Alzheimer's disease: loss of function, what kind of function?  
Claudio Russo (Campobasso)
- 10.00 Intestinal microbiota: an emerging target in brain aging  
Patrizia Brigidi (Bologna)
- 10.20 Aging and dementia: the role of inflammation  
Gianluigi Forloni (Milan)
- 10.40 Discussion
- 10.50 Coffee break

### **Oral communications**

- 11.15 Resilience to Alzheimer's pathology and peculiar variability in the brain of centenarians  
G. Marcon, G. Forloni, M. Tettamanti, C. Franceschi, G. Giaccone (Trieste, Udine, Milan, Bologna)
- 11.25 Astrocytic calcineurin and Alzheimer's disease: a new druggable candidate  
C. Balducci, P. La Vitola, L. Tapella, S. Leva, G. Dematteis, L. Dacomo, A. Genazzani, D. Lim, G. Forloni (Milano, Novara)
- 11.35 Exploring the different pathways of Alzheimer's disease and Lewy body dementia: transcriptomic analysis in different areas of the human brain  
R. R. Ferrari, V. Fantini, F. Dragoni, R. Di Gerlando, Rizzo B. A. Angerame, X. Profka, V. Medici, A. Guaita, S. Gagliardi & A. Davin, T.E. Poloni (Abbiategrosso, Reggio Emilia, Pavia, Alessandria, Novara)

- 11.45 Identical Twins, Identical Lifestyle and Identical Disease: Identical Pathology?  
A. Gatti, V. Medici, G. Profka, M. Rossi, E. Turturici, G. Negro, A. Malvaso, B. Sornsip, M. Ceroni, A. Costa, A. Guaita, T.E. Poloni (Milan, Pavia)
- 11.55 Molecular and neuropathological studies of two patients with D178N-129M mutation who developed FFI after long-term treatment with doxycycline  
G. Zanusso, F. Moda, M. Fiorini, D. Bazan, V. Cirielli, U. Nardi, N. Pasin, E. Fontana, G. Giaccone, R. Chiesa, F. Tagliavini, S. Ferrari, V. Artuso, I. Roiter, G. Forloni (Milan, Vicenza, Treviso)
- 12.05 Neuropathological characterization of the basal ganglia neurodegeneration in the mouse model of Parkinson's disease  
E. Paldino, M. Massaro Cenere, E. Guatteo, N. B. Mercuri, F. R. Fusco (Rome)
- 12.15 PET/FDG as diagnostic tool in atypical case of Huntington disease  
G. Puoti, S. Pappatà, E. Signoriello, M. Melone, E. Vanore (Naples, Philadelphia, Pennsylvania)
- 12.20 Concluding remarks
- 12.30 Brain aging and health: lessons from the centenarians  
Gabriella Marcon (Trieste)  
Introduced by Francesca R. Fusco (Rome)

*Please note that for any absences of the last hour in the Faculty, we will proceed to replace with the speakers already present in the scientific program who have the same field of competence or, alternatively, the scientific responsible of the event will present the report.*

# GENERAL INFORMATION

## VENUE

Comune di Fiumicino  
Aula Consiliare  
Piazza Generale Carlo Alberto dalla Chiesa, 78  
00054 Fiumicino RM

## ORGANIZING SECRETARIAT

### SIENA CONGRESS

Via del Rastrello, 7 - 53100 Siena  
Tel. 0577 286003  
e-mail: [info@sienacongress.it](mailto:info@sienacongress.it)

## CONGRESS SCIENTIFIC DIRECTOR

Francesca R. Fusco

## CONGRESS REGISTRATION

Congress registration gives the right to participate in the scientific work, to receive congress materials, attendance certificates and to use services provided at congress venue.

For further information on the congress, please visit [www.ainpenc.it](http://www.ainpenc.it)

## CME-CONTINUING MEDICAL EDUCATION

Provider: Società Italiana di Neurologia ID 1802

Event ID: 416288

Assigned Credits: n. 14

The course is included in the Italian ECM National Programme and it will be Accredited for Medical Doctor (Neurology, Geriatrics, Psychiatry, Psychotherapy), Nurse, Pharmacist, Psychologist, Biologist and Physical Therapist.

## LEARNING OBJECTIVE

Applicazione nella pratica quotidiana dei principi e delle procedure dell'evidence based practice (EBM - EBN - EBP)

## DIRECTIONS

### BY TRAIN

**Leonardo Express**, train no-stop (departures every 15 minutes, journey time 32 minutes) from Rome Termini, from 05.35 to 22.35, and from Fiumicino Airport from 06.23 to 23.23

### BY BUS

There are several bus companies that connect Fiumicino to Rome, starting from terminals 2 and 3.

For information on timetables, routes and ticket prices visit the website:

TAM BUS <https://www.tambus.it/roma-fiumicino/>

SITBUSHUTTLE <https://www.sitbusshuttle.com>

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