

International meeting PISA per la SLA

*Artificial Intelligence
driving research and cure in ALS
and other Motor Neuron Diseases*

Host and local organizer
Gabriele Siciliano

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Faculty

Atalaia Antonio M. - Paris, France
Bandini Andrea - Pisa, Italy
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Botta Monica - Novara, Italy
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Di Marco Roberto - Verona, Italy
Fanucci Luca - Pisa, Italy
Fornai Francesco - Pisa, Italy
Giannoni Stefano - Bari-Tricase, Italy
Girardi Laura - Marostica, Italy
Giugno Alessia - Bari-Tricase, Italy
Iacoangeli Alfredo - London, UK
Lopriore Piervito - Pisa, Italy

Local organizing Committee

Gabriele Siciliano
Andrea Bandini
Francesca Bianchi
Cecilia Carlesi
Luca Fanucci
Michelangelo Mancuso
Dino Pedreschi
Giulia Ricci
Giovanni Santi
Erika Schirinzi

Lunetta Christian - Pavia, Italy
Mandrioli Jessica - Modena, Italy
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Mancuso Michelangelo - Pisa, Italy
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Micera Silvestro - Pisa, Italy
Morandi Daniela - Pistoia, Italy
Nyoungui Elisabeth - Goettingen, Germany
Ottoboni Linda - Milan, Italy
Pedreschi Dino - Pisa, Italy
Pellicanò Giannantonio - Firenze, Italy
Proietti Tommaso - Pisa, Italy
Sansone Valeria - Milan, Italy
Santi Giovanni - Pisa, Italy
Siciliano Gabriele - Pisa, Italy
Silani Vincenzo - Milan, Italy
Spinelli Edoardo - Milan, Italy
Ticozzi Nicola - Milan, Italy

General topics:

- Phenotypic determinants
- Natural history prediction
- Diagnostic flow charts
- Pathogenic mechanisms
- Therapeutic approaches and druggable molecules
- Assistive technology and Smart Cities

ID Evento: 362-441460

Per l'evento sono stati assegnati nr. 10 crediti formativi E.C.M per le seguenti professioni e discipline

Professione	Disciplina
BIOLOGO	Biologo
LOGOPEDISTA	Logopedista
PSICOLOGO	Psicoterapia; Psicologia
FISICO	Fisica
MEDICO CHIRURGO	Genetica Medica; Malattie Dell'apparato Respiratorio; Medicina Fisica e Riabilitazione; Neurologia; Neuropsichiatria Infantile; Otorinolaringoiatria; Biochimica Clinica; Laboratorio di Genetica Medica; Neurofisiopatologia; Neuroradiologia; Medicina Generale (Medici Di Famiglia); Continuità Assistenziale; Cure Palliative; Chimica; Chimico
INFERMIERE	Infermiere

General information

- Free registration
- Abstracts deadline: 15 February 2025
- For further information please contact: info@fclassevents.com

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International meeting PISA per la SLA

*Artificial Intelligence
driving research and cure in ALS
and other Motor Neuron Diseases*

21 - 22 March 2025
Pisa, Italy

Palazzo della Sapienza,
Aula Magna Storica e Aula Magna Nuova
Via Curtatone e Montanara, 15, Pisa



International meeting PISA per la SLA

Artificial Intelligence
driving research and cure in ALS
and other Motor Neuron Diseases

I am proud to welcome you to Pisa for this appealing meeting. Thanks to an outstanding lineup of international scientists who will present the latest advancements in ALS and other MND research. Emerging artificial intelligence applications and digital health to improve care and cure in neuromuscular disorders will be the framework of this event. With a unique blend of both established and emerging researchers, the ALS Pisa meeting promises to be a 2-days meeting enriched by stimulating interdisciplinary networking in MNDs.

Welcome to Pisa!
Gabriele Siciliano

waiting for



Scientific Program

March 21, 2025

- 08.30 - 09.00 Participants' registration
- 09.00 - 09.15 Authorities welcoming
- 09.15 - 09.30 Introduction: Human centered AI - *Dino Pedreschi (Pisa, Italy)*

SESSION 1: Big data analysis for population-based studies
Chairs: *Dino Pedreschi (Pisa, Italy), Mario Bochicchio (Bari, Italy)*

- 09.30 - 09.50 ALS epidemiology: from genetics to environmental risk factors in population-based studies
Alessia Giugno and Stefano Giannoni (Bari-Tricase, Italy)
- 09.50 - 10.10 Big data for human phenotype ontology in neuromuscular diseases: from disease registries to precision medicine
Antonio M. Atalaia (Paris, France)
- 10.10 - 10.30 Unravelling pathogenic role of habits and metabolic factors
Christian Lunetta (Pavia, Italy)
- 10.30 - 10.50 Federated learning as a new strategy for artificial intelligence stepforward: the Screen4care project
Elisabeth Nyoungui (Goettingen, Germany)

- 10.50 - 11.05 Discussion
- 11.05 - 11.20 Coffee break

SESSION 2: Artificial intelligence for phenotype determinants analysis and natural history prediction
Chairs: *Silvestro Micera (Pisa, Italy), Jessica Mandrioli (Modena, Italy)*

- 11.20 - 11.40 Machine Learning for ALS phenotype stratification: Achievements, Pitfalls, and Future Directions.
Umberto Manera (Turin, Italy)
- 11.40 - 12.00 EEG-derived functional network disruption in ALS cognitive phenotypes
Marjorie Metzger (Dublin, Ireland)
- 12.00 - 12.20 Machine learning for speech analysis
Andrea Bandini (Pisa, Italy)
- 12.20 - 12.40 Gait analysis in ALS and other motorneurone diseases
Roberto Di Marco (Verona, Italy)
- 12.40 - 13.00 Modeling new phenotypes with disease modifying therapies in SMA
Giorgia Coratti (Rome, Italy)

- 13.00 - 13.30 Discussion
- 13.30 - 14.30 Lunch break and posters viewing

SESSION 3: Timely and differential diagnosis issues
Chairs: *Vincenzo Silani (Milan, Italy), Gabriele Siciliano (Pisa, Italy), Monica Povedano (Barcellona, Spain)*

- 14.30 - 14.50 Connectomics and tractography in motor neuron diseases
Edoardo Spinelli (Milan, Italy)
- 14.50 - 15.10 Deep learning predictions of survival based on brain and spinal cord MRI morphometry
Giannantonio Pellicanò (Firenze, Italy)
- 15.10 - 15.30 Computational approaches to biological marker development
Alfredo Iacoangeli (London, UK)
- 15.30 - 15.50 Machine Learning for Supporting Diagnosis of ALS and SMA with electromyography
Piervito Lopriore (Pisa, Italy)
- 15.50 - 16.00 Future perspectives in genetic prevention by IVF and PGT
Mariabeatrice Dal Canto (Monza, Italy) and Laura Girardi (Marostica, Italy)
- 16.00 - 16.15 Coffee break

SESSION 4: Artificial Intelligence and robotics in supporting treatment and assisting patients with motor neuron diseases
Chairs: *Michelangelo Mancuso (Pisa, Italy), Luca Fanucci (Pisa, Italy)*

- 16.15 - 16.35 Robotics in assisting patients' life
Tommaso Proietti (Pisa, Italy)
- 16.35 - 16.55 Artificial intelligence in telemonitoring and in telemedicine
Luce Barbat du Clozel (Marseille, France)
- 16.55 - 17.15 Virtual reality and digital tools in SMA
Valeria Sansone (Milan, Italy)
- 17.15 - 17.30 Discussion
- 17.30 - 18.30 Posters Session

21 marzo | 15:00 - 18:30 Rotary & AISLA session - focused debate: "Qui ed ora con la SLA"
Aula Magna Storica, ground floor

20.00 - 22.30 Charity Dinner at S. Ranieri Hotel

March 22, 2025

22 marzo | 08.30 - 13.30 Ottava Giornata Nazionale per le Malattie Neuromuscolari - GMN 2025

SESSION 5: Modelling pathogenetic mechanisms towards new treatment avenues
Chairs: *Adriano Chiò (Turin, Italy), Francesco Fornai (Pisa Italy)*

- 09.00 - 09.20 Digital analyses in advanced tissue models and organoids: the role of proteomics
Linda Ottoboni (Milan, Italy)
- 09.20 - 09.40 Systems-Level Functional Connectivity Biomarker Signature in ALS
Raffaele Conte (Pisa, Italy)
- 09.40 - 10.00 Artificial Intelligence for genetic and genomic data interpretation in ALS
Nicola Ticozzi (Milan, Italy)
- 10.00 - 10.20 Combining multi-omics and human models to identify disease signatures of selective vulnerability in ALS
Alberto Catanese (Ulm, Germany)
- 10.20 - 10.40 Machine learning and data analysis for the development of new molecules
Robert McFarlane (Dublin, Ireland)
- 10.40 - 11.00 Discussion
- 11.00 - 11.30 Coffee break

SESSION 6: One health future perspectives in MND: from lab to smart daily leaving

11.30 - 12.30 Round Table - Chair: *Giovanni Santi (Pisa, Italy)*

From Smart Cities to Healthy&Active Cities: Built Environments for inclusion and fragile users
Giovanni Santi (Pisa, Italy)
Urban space and well-being: healthy cities beyond smartness
Valerio Cutini (Pisa, Italy)
Landscape design and gardens for well-being and human care
Monica Botta (Novara, Italy)
Pros and cons on the appropriate use of AI in ALS: patient perspectives
Daniela Morandi (Pistoia, Italy)

Farewell and closing remarks - *Gabriele Siciliano (Pisa, Italy)*