

2nd

PLUG Physiology Symposium

Discussing research with a taste

*Scientific meeting on applied
respiratory physiology in the critically ill*

the PLVG

www.plugwgroup.org

Boston, MA (USA)

26-28 Sept. 2024

Preliminary program



Join us

for the second edition of the PLUG Physiology Symposium. We will meet in Boston for two and a half days to listen and discuss the latest research data on respiratory physiology presented by leading groups from across all continents. In addition, special lectures in Jordi Mancebo's memory will highlight the most recent advancements in the field and focused discussion will lead to methodological publications.

Keynote lecture in honour of Jordi Mancebo



Executive Committee

Laurent Brochard, Toronto (CA)
Leo Heunks, Nijmegen (NL)
Tommaso Mauri, Milano (IT)
Daniel Talmor, Boston (USA)



Scientific Committee

Elias Baedorf Kassis, Boston (USA)
Alexandre Demoule, Paris (F)
Ewan Goligher, Toronto (CA)
Annemijn Jonkman, Rotterdam (NL)
Mariangela Pellegrini, Uppsala (S)
Marco Ranieri, Bologna (I)
Oriol Roca, Sabadell (E)
Elena Spinelli, Milano (I)

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PLUG
Physiology
Symposium

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Preliminary program | September 26

09.00

WELCOME

Laurent Brochard, Leo Heunks, Tommaso Mauri

09.15

Physiological mechanisms of dyspnea

Robert Banzett

BEST ABSTRACT

Advanced respiratory monitoring to optimise physiology

Chairpersons: Marcelo Amato, Annemijn Jonkman

09.45

Setting PEEP based on electrical impedance tomography or esophageal pressure results in better pulmonary hemodynamics - Preliminary analysis

Mayson Sousa La

10.05

Effect of mass loading on partitioned respiratory mechanics and EIT-derived measures of collapse and hyperdistention in an AHRF swine model

Alice Nova

10.25

Evaluation of the effects of continuous anterior thoracic compression on ventilation perfusion ratios and hemodynamics during ARDS

Pascale Labedade

10.45

Regional effects of PEEP on strain and recruitability: insights from experimental and clinical measurements

Luca S. Menga

11.05

BREAK

11.30

Effect of individualized positive end-expiratory pressure titrated by electrical impedance tomography on ventilation-perfusion distribution in patients with acute respiratory distress syndrome

Yuan Xueyan

11.50

The superimposed pressure does not approximate the elevated pleural pressure in subjects with class III obesity

Stefano Spina

12.10

The recruitment-to-inflation ratio reflects the impact of PEEP on dynamic lung strain a CT scan study in a model of ARDS

Francesco Murgolo

12.30

The effects of gravity on lung ventilation and perfusion

Marcelo Amato

13.00

LUNCH

BEST ABSTRACT**Mechanisms of VILI**

Chairpersons: Jeremy Beitler, Elena Spinelli

14.00

Topographical correspondence between macrophage-associated lung inflammation and mechanical strain during ventilator-induced lung injury

Gaetano Perchiazzi

14.20

Lung mechanics may mediate pro-fibrotic signaling in mechanically ventilated patients with ARDS

Alexis Serra

14.40

From lobar inflammation to diffuse self-inflicted lung injury: an experimental study

Anna Damia

15.00

Lung stress mapping: innovative technology to visualize a hidden risk of ventilator-induced lung injury

Takashi Maezawa

15.20

Jordi Mancebo keynote lecture

A journey through science

Arthur Slutsky

16.10

Posters viewing time

18.00

Reception for all participants

09.00

WELCOME

Laurent Brochard, Leo Heunks, Tommaso Mauri

09.15

Ventilatory ratio and dead space in ARDS

Pratik Sinha

BEST ABSTRACT**Modulation of respiratory muscles activity and drive**

Chairpersons: Alexandre Demoule, Irene Telias

09.45

Hierarchical clustering of electrical impedance tomography data identifies sub-phenotypes of ARDS with different respiratory drive – EIT-omics

Marco Leali

10.05

Monitoring diaphragmatic effort during phrenic nerve stimulation based on changes in airway pressure-time product

Andrea Castellví-Font

10.25

Ultrasound guided transcutaneous phrenic nerve stimulation in critically ill patients: a new method to evaluate diaphragmatic function

Mathieu Capdevila

10.45

Longitudinal assessment of accessory muscle activity and coordination after traumatic spine injury: the ACCESSIT study

Annia Schreiber

11.05

BREAK

11.30

Effect of sedation on respiratory drive and effort in patients with acute hypoxic respiratory failure during the early stages of pressure support ventilation

Michele Bertoni

11.50

Airway occlusion pressure measured non-invasively during continuous positive airway pressure is sensitive to elevated respiratory load and effort

Georgiana Roman-Sarita

12.10

The effect of high-flow nasal oxygen on respiratory effort in the post-extubation phase - a randomized clinical trial

Thijs Janssen

12.30

Exosomes and lungs cross-talk

Simon Robson

13.00

LUNCH

14.00

Dangers of spontaneous breathing in ARDS

Takeshi Yoshida

BEST ABSTRACT
Quantification of respiratory effort and drive

Chairpersons: Ewan Goligher, Liu Ling

14.30

A physiological model to estimate breath-by-breath patient's inspiratory effort during pressure support ventilation

Mattia Docci

14.50

Magnitude and pattern of breathing effort after cardiac surgery. Results of the EFFORT study

Alice Grassi

15.10

Switching from controlled to assisted mechanical ventilation: a multi-center retrospective study

Jim Smit

15.30

An index combining tidal volume and oxygenation to predict outcome of nasal high-flow therapy

Chen Dongyu

15.50

BREAK
BEST ABSTRACT
Respiratory physiology in specific settings

Chairpersons: Glasiele Alcala, Oriol Roca

16.10

Ventilation heterogeneity and artificially-induced PEEP_i in acute respiratory failure patients

Camilla Ziliani

16.30

Lung recruitment influences intracranial compliance and autoregulation in mechanically ventilated brain-injured patients. A prospective, observational pilot study based on chest electrical impedance tomography

Mariangela Pellegrini

16.50

The association between temporal regional ventilation delay monitored by electrical impedance tomography and tidal recruitment detected by four-dimensional CT during low tidal ventilation

Atsuko Shono

17.10

iNO therapy is associated with lower mortality amongst ventilated pediatric patients with moderate to severe hypoxemia when alveolar dead space fraction is high

Anoopindar Bhalla

17.30

Biomarkers of VILI

Claudia Dos Santos

09.00

WELCOME

09.15

Interactive discussion for position paper on commercial ventilators settings and measures

Chairpersons: Leo Heunks, Elias Baedorf-Kassis

- Automated asynchronies detection
- Respiratory effort
- Closed loop ventilation
- Recruitability
- Transpulmonary pressure

11.45

Update on Plug activities and studies

the **PLVG**
www.plugwgroup.org

General information



Meeting venue

Joseph B. Martin Conference Center

77 Avenue Louis Pasteur, Boston, MA 02115 (USA)

Organizing secretariat Start Promotion Srl

Via Soperga, 10 - 20127 Milano (I)
 Phone: + 39 02 67071383
 E-mail: info@startpromotion.it

General information

Call for abstract

Abstracts deadline expired **April 30th 2024**.

At least one of the authors is required to be a registered participant to the Plug Meeting in Boston.

Registration information

Admission to the Symposium is limited with mandatory pre-registration.

Registration fees

Physician	€ 250.00
Trainee, Nurse, AHP	€ 100.00
Low, middle income countries	€ 100.00
Single day registration - Sept. 26 th	€ 50.00
Exhibitor/Companies employee	€ 350.00

In person meeting only, no online connection provided.

Online registration

Registrations should be done online at: www.startpromotion.it

Please read the instructions carefully before starting your registration.



General information

Hotel suggestion with reduced fee

Available until **July 24th 2024** first come first served.



1 The Inn at Longwood Medical ***

400 mt from congress venue

Room Rate: **\$259**

Booking Code: **BIAN0924**



2 Hilton Garden Inn Boston/Brookline ***

1.4 km from congress venue

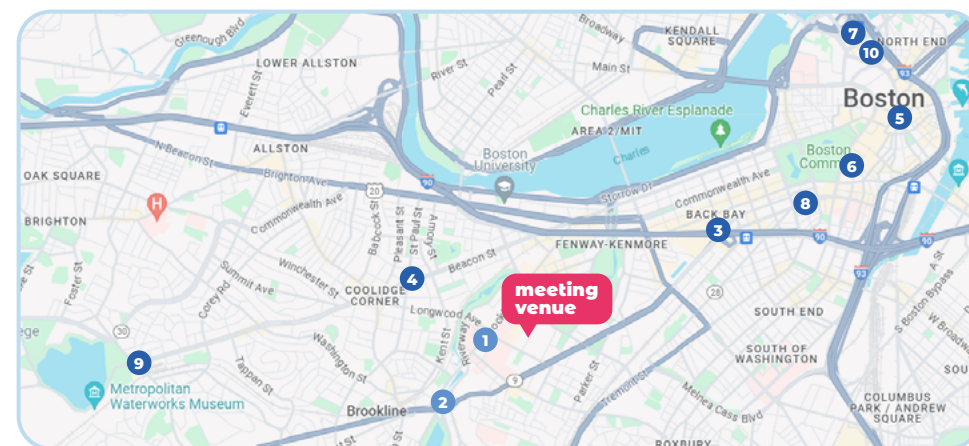
Room Rate: **\$389** with breakfast included

Booking Code: **PLUG Meeting**

General information

Hotel suggestions

Please make sure to reserve your accommodation accordingly.



3 The Westin Copley Place, Boston ****

15 minutes by public transport

4 The Arcadian Powered by Sonder ***

17 minutes by public transport

5 Hyatt Centric Faneuil Hall Boston ****

20 minutes by public transport

6 The Godfrey Hotel Boston ****

25 minutes by public transport

7 Indigo Boston Garden ***

25 minutes by public transport

8 Revere Hotel Boston Common ****

28 minutes by public transport

9 AC Hotel By Marriott Boston Cleveland Circle 3 ***

28 minutes by public transport

10 Citizen-M Boston North Station ****

26 minutes by public transport



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