PLUG Physiology Symposium

Discussing research with a taste

Scientific meeting on applied respiratory physiology in the critically ill



Boston, MA (USA)

Sept. 26-28 2024



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





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)
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9 00 am - 9 10 am

Program | September 26

Illercome



9.00 am - 9.10 am	Laurent Brochard, Leo Heunks, Tommaso Mauri
9.10 am - 9.15 am	WELCOME TO BOSTON Daniel Talmor
9.15 am - 9.45 am	Physiological mechanisms of dyspnea Robert Banzett
	BEST ABSTRACT Advanced respiratory monitoring to optimise physiology Chairpersons: Marcelo Amato, Annemijn Jonkman
9.45 am - 10.05 am	Setting PEEP based on electrical impedance tomography or esophageal pressure results in better pulmonary hemodynamics - Preliminary analysis Mayson Sousa - Katira Bhusha, Pellegrini Mariangela, Dubo Sebastian, Menga Luca S, Docci Mattia, Schreiber Annia, Post Martin, Brochard Laurent
10.05 am - 10.25 am	Effect of mass loading on partitioned respiratory mechanics and EIT-derived measures of collapse and hyperdistention in an AHRF swine model Alice Nova - Victor Marcus Henrique, Xin Yi, Alcala Glasiele Cristina, Gaulton Timothy, Spina Stefano, Winkler Tilo, Berra Lorenzo, Cereda Maurizio
10.25 am - 10.45 am	Evaluation of the effects of continuous anterior thoracic

compression on ventilation perfusion ratios and

Pascale Labedade - Tuffet Samuel, Moncomble Elsa, Boujelben Mohammed, Haudebourg Anne Fleur, Masi Paul, Bagate François, Mekontso Dessap Armand,

hemodynamics during ARDS

Carteaux Guillaume







10.45 am - 11.05 am

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

Luca S. Menga - Sousa Mayson, Sun Nannan, Roldan Rollin, Brault Clement, Pellegrini Mariangela, Ko Matthew, Damiani Felipe, Poophiboon Vorakamol, Dubo Sebastian, Vieira Fernando, Rodriguez Antenor, Chen Lu, Schreiber Annia, Post Martin, Brochard Laurent,

11.05 am - 11.30 am

COFFEE BREAK

11.30 am - 11.50 am

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 - Haibo Qiu, Ling Liu

11.50 am - 12.10 pm

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

Stefano Spina - Mantz Lea, Nova Alice, Xin Yi, Gerard Sarah e., Fintelmann Florian J., Berra Lorenzo, Cereda Maurizio, Ribeiro De Santis Santiago Roberta, Grassi Luigi

12.10 pm - 12.30 pm

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 - Francesco Murgolo, Grieco Domenico Luca, Spadaro Savino, Grasso Salvatore

12.30 pm - 1.00 pm

The effects of gravity on lung ventilation and perfusion Marcelo Amato

1.00 pm - 2.00 pm

Lunch







	BEST ABSTRACT Mechanisms of VILI Chairpersons: Jeremy Beitler, Elena Spinelli
2.00 pm - 2.20 pm	Topographical correspondence between macrophage-associated lung inflammation and mechanical strain during ventilator-induced lung injury Gaetano Perchiazzi - Liggieri Francesco, Chiodaroli Elena, Pellegrini Mariangela, Puuvuori Emmi, Sigfridsson Jonathan, Velikyan Irina, Chiumello Davide, Ball Lorenzo, Pelosi Paolo, Stramaglia Sebastiano, Antoni Gunnar, Eriksson Olof, Perchiazzi Gaetano
2.20 pm - 2.40 pm	Lung mechanics may mediate pro-fibrotic signaling in mechanically ventilated patients with ARDS Alexis Serra - Garcia Ivan, Padilla Clarissa, Dabideen Rachel, Olney Sara, Jeremy Beitler
2.40 pm - 3.00 pm	From lobar inflammation to diffuse self-inflicted lung injury: An experimental study Anna Damia - Spinelli Elena, Consalvo Leonardo, Grasselli Giacomo, Mauri Tommaso
3.00 pm - 3.20 pm	Lung stress mapping: Innovative technology to visualize a hidden risk of ventilator-induced lung injury Takashi Maezawa - Yoshida Takeshi, Hashimoto Haruka, Iwata Hirofumi, Fadlilah Firtiogusran Andi Muhammad, Shrestha Kriti, Koyama Yukiko, Fujino Yuji
3.20 pm - 3.50 pm	Jordi Mancebo keynote lecture. A journey through science Arthur Slutsky
3.50 pm - 4.10 pm	COFFEE BREAK
4.10 pm - 6.00 pm	Posters viewing and discussion time. See detailed pag. 12
6.00 pm - 8.00 pm	Reception for all participants







9.00 am - 9.15 am

WELCOME

Laurent Brochard, Leo Heunks, Tommaso Mauri

9.15 am - 9.45 am

Ventilatory ratio and dead space in ARDS

Pratik Sinha

BEST ABSTRACT

Modulation of respiratory muscles activity and drive

Chairpersons: Alexandre Demoule, Irene Telias

9.45 am - 10.05 am

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

Marco Leali - Grieco Domenico Luca, Spinelli Elena, Perez Joaquin, Chiavieri Valentina, Rosà Tommaso, Ferrara Pierluigi, Scaramuzzo Gaetano, Antonelli Massimo, Spadaro Savino, Grasselli Giacomo, Mauri Tommaso

10.05 am - 10.25 am

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

Andrea Castellví-Font - Morris Idunn S, Madorno Matías, Bellissimo Catherine A, Thakkar Viral, Mehta Nawzer, Bassi Thiago, Goligher Ewan C

10.25 am - 10.45 am

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

Mathieu Capdevila - De Jong Audrey, Belafia Fouad, Vonarb Aurelie, Carr Julie, Molinari Nicolas, Choquet Olivier, Capdevila Xavier, Jaber Samir

10.45 am - 11.05 am

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

Annia Schreiber - Vieira Fernando, Rodrigues Antenor, Madotto Fabiana, Ko Matt, Phoophiboon Vorakamol, Mcfarlan Amanda, Brault Clément, Subirà Carles, Brochard Laurent







11.05 am - 11.30 am	COFFEE BREAK
11.30 am - 11.50 am	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 - Nodari Davide, Renzetti Stefano, Giovanazzi Stefano, Falappi Michele, Persico Lisa, Ortolà Carlos Ferrando, Spadaro Savino, Latronico Nicola, Piva Simone
11.50 am - 12.10 pm	Airway occlusion pressure measured non-invasively during continuous positive airway pressure is sensitive to elevated respiratory load and effort Georgiana Roman-Sarita - Bassi Thiago, Dianti Jose, Ferreyro Bruno, Fard Samira, Ferguson Niall, Goligher Ewan
12.10 pm - 12.30 pm	The effect of high-flow nasal oxygen on respiratory effort in the post-extubation phase - a randomized clinical trial Thijs Janssen - Weller Dolf, Lupgens Niki, Den Uil Corstiaan, Jonkman Annemijn, Heunks Leo, Evert-Jan Wils, Endeman Henrik
12.30 pm - 1.00 pm	Exosomes and lungs cross-talk Simon Robson
1.00 pm - 2.00 pm	LUNCH
2.00 pm - 2.30 pm	Dangers of spontaneous breathing in ARDS Takeshi Yoshida







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Quantification of respiratory effort and drive Chairpersons: Ewan Goligher, Liu Ling

2.30 pm - 2.50 pm

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

Mattia Docci - Vieira Fernando, Bellani Giacomo, Brochard Laurent

2.50 pm - 3.10 pm Magnitude and pattern of breathing effort after cardiac surgery. Results of the EFFORT study

Alice Grassi - Castellvi-Font Andrea, Junhasavasdikul Detajin, Sklar Micheal, Grieco Domenico L, Dres Martin, Piraino Thomas, Pham Tai, Melo Luana, Mellado-Artigas Ricardo, Mazer David, Goligher Ewan C, Brochard Laurent, Telias Irene

3.10 pm - 3.30 pm Switching from controlled to assisted mechanical ventilation: A multi-center retrospective study

Jim Smit - Van Bommel Jasper, Commers Diederik, Reinders Marcel, Van Genderen Michel, Krijthe Jesse, Jonkman Annemijn

3.30 pm - 3.50 pm
An index combining tidal volume and oxygenation to predict outcome of nasal high-flow therapy

Chen Dongyu - Xueyan Yuan, Yali Chao, Jianfeng Xie, Yingzi Huang, Songqiao Liu, Haibo Qiu, Yi Yang, Ling Liu,

3.50 pm - 4.10 pm COFFEE BREAK







	BEST ABSTRACT Respiratory physiology in specific settings Chairpersons: Glasiele Alcala, Oriol Roca
4.10 pm - 4.30 pm	Ventilation heterogeneity and artificially-induced PEEPi in acute respiratory failure patients Camilla Zilianti - Kyriakoudi Anna, Potamianou Efstathia, Karakatsanis Charalampos, Rovina Nikoletta, Koutsoukou Antonia, Pecchiari Matteo
4.30 pm - 4.50 pm	Lung recruitment influences intracranial compliance and autoregulation in mechanically ventilated braininjured patients. A prospective, observational pilot study based on chest electrical impedance tomography Gaetano Perchiazzi - Bencze Reka, Kawati Rafael, Hånell Anders, Engquist Henrik, Freden Filip, Pellegrini Mariangela
4.50 pm - 5.10 pm	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 - Shinshu Katayama, Ken Tonai, Masamitsu Sanui
5.10 pm - 5.30 pm	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 - Khemani Robinder, Newth Christopher
5.30 pm - 6.00 pm	Biomarkers of VILI Claudia Dos Santos



9.00 am - 9.15 am

WELCOME

9.15 am - 11.45 am

Interactive discussion for position paper on commercial ventilators settings and measures

Chairpersons: Glasiele Alcala, Elias Baedorf-Kassis, Ewan Goligher, Leo Heunks

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

11.45 am - 12.30 pm

Update on Plug activities and studies

Chairpersons: Laurent Brochard, Leo Heunks, Tommaso Mauri

- RECRUIT: Enrolment status, planned analysis and first publication on the full dataset, proposals for new additional analyses
 Glasiele Alcala, Annemijn Jonkman
- BEARDS and Pmus: Publications in progress, planned analysis for the main publication, proposals for new additional analyses
 Matias Madorno, Irene Telias
- SIGH: Publications in progress, proposals for new additional analyses, plans for a novel RCT with endpoint mortality Emanuele Rezoagli, Elena Spinelli
- Last Year Meeting: Status of the manuscript and plans for collaboration with Chest Crit Care Irene Telias

E-Poster board session | September 26 | GROUP 1



4.10 - 4.45 pm

Authors are requested to be at their assigned monitors for the period of time specified. During this time authors should be available for discussion of the E-Poster.

Chairpersons: M. Amato, G. Perchiazzi

The response of regional ventilation to prone position in patients with acute respiratory distress syndrome and severe obesity Presenter: Timothy Gaulton

Gaulton Timothy, Cereda Maurizio, Berra Lorenzo, De Santis Santiago Roberta, César Araújo Morais Caio, Britto Passos Amato Marcelo

Time-varying intensity of ventilatory efficiency and mortality in patients with acute respiratory distress syndrome

Presenter: Yuan Xuevan

Jiang Lianlian, Chen Hui, Chang Wei, Sun Qin, Yuan Xueyan, Wu Zongsheng Xie Jianfeng, Liu Ling, Yang Yi

Feasibility of continuous beside assessment of ventilation and perfusion with EIT

Presenter: Tzu-Jen Kao

Kao Tzu-Jen, Licho Robert, Davenport David

Continuous estimation of quasi-static compliance of respiratory system under pressure-control ventilation Presenter: Ge Huiging

Huiging Ge, Qing Pan

The P1-P2 decay and the risk of ventilatorinduced lung injury: A multicenter prospective observational study

Presenter: Mara Bassi

Pettenuzzo Tommaso, Bassi Mara, Boscolo Annalisa, Sella Nicolò, Zarantonello Francesco, Geraldini Federico, De Cassai Alessandro, Munari Marina, Biuzzi Cesare, Spadaro Savino, Scolletta Sabino, Navalesi Paolo

Differential evolution of inspiratory, expiratory, and limb muscle mass and function during mechanical ventilation

Presenter: Catherine Bellissimo Bellissimo Catherine, Bootjemjai Paweenuch, Roman-Sarita Georgiana, Morris Idunn, Bassi Thiago, Goligher Ewan

The Focal CT score: An objective analysis tool for grading of focal lung injury. A preliminary analysis

Presenter: Martin Tovedal

Tovedal Martin, Pellegrinin Mariangela, Perchiazzi Gaetano, Lipcsey Miklós, Covaciu Lucian, Kawati Rafael, Bjarnadóttir Kristin Jóna, Von Seth Magnus

Chairpersons: T. Mauri, I. Telias

Differential risk of overdistension across racial and ethnic groups during intraoperati ve mechanical ventilation

Presenter: Max Hentges

Hentges Max, Redaelli Simone, Von Wedel Dario, Wachtendorf Luca, Santer Peter, Paschold Bela-Simon, Kaiser Lars, Munoz-Acuna Ricardo. Tenge Theresa, Chen Guanging, Baedorf-Kassis Elias, Schaefer Maximilian

Performances of surface mechanomyography using a parasternal patch to detect inspiratory effort: Preliminary results

Presenter: Arnaud Lesimple

M. Lebret, A. Lesimple, M.Carpentier, M. Lefranc, A. Vuillermoz, A Mercat, JC Richard, F. Beloncle

10 Agreement of electrical impedance tomography-guided best PEEP determination with decremental PEEP trial

Presenter: Lisa-Marie Wichelhaus

Wichelhaus Lisa-Marie, Redaelli Simone, Munoz Ricardo, Suleiman Aiman, Wachtendorf Luca J, Tenge Theresa, Paschold Bela-Simon, Baedorf-Kassis Elias, Talmor Daniel, Schaefer Maximilian S

Stress relaxation of airway pressure as a biomarker of regional driving pressure imbalances during passive mechanical ventilation

> Presenter: Mattia Docci Docci Mattia, Vieira Fernando, Menga Luca, Sousa Mayson, Brochard Laurent

12 Predicting experimental ventilator-induced lung injury using ventilator waveform features Presenter: Elizabeth Kaye

Kaye Elizabeth, Sosa Alexander, Warner Katharine, Albers David, Sottile Peter, Smith Bradford

13 Validation of alternative methods to optimize esophageal balloon filling volume

Presenter: Glasiele Alcala

Alcala Glasiele, Marcus Victor, Hatus Wanderley, Ana Cardoso, Tilo Winkler, Mauricio Cereda, Yi Xin, Eduardo Costa, Daniel Talmor, Elias Baedorf Kassis, Lorenzo Berra, Marcelo Amato,

E-Poster board session | September 26 | GROUP 2



4.50 - 5.25 pm

Authors are requested to be at their assigned monitors for the period of time specified. During this time authors should be available for discussion of the E-Poster.

Chairpersons: L. Brochard, A. Schreiber

1 Gas composition and pressure in the hypopharynx during high-flow oxygen therapy through nasal cannula (HFNC) in healthy volunteers with different respiratory pattern: A physiological study

Presenter: Andrey Yaroshetskiy

Yaroshetskiy Andrey, Krasnoshchekova Anna, Tkachenko Fedor, Rubashchenko Alina, Merzhoeva Zamira. Avdeev Sergev

Partitioning of respiratory compliance and work of breathing

Presenter: Candela Serra Sánchez

Serra Sánchez Candela, Tejero Pedregosa Armando, Parra Morais Laura, Sanmartino Gonzalez Carolina, Berenguer Rodríguez Miguel, Jerez Sánchez Ricardo, Márquez García Antonia, Ochoa Sangrador Carlos, Tarancón Maján Concepción, Marcos Gutierrez Alfredo, López Pérez Ana Belén, Cortés Díaz Silvia, Beltrán Martínez Laura, Monge Donaire Diana

3 Machine learning models can interpret ventilator waveforms to predict work of breathing

Presenter: Benjamin Yoon

Yoon Benjamin, Obeso Ishmael, Aczon Melissa, Ledbetter David, Rubel Boris, Bennett Tellen, Khemani Robinder, Wetzel Randall

- 4 Comparison of two methods for Pendelluft estimation of trigger breaths in ARDS patient Presenter: Sheng-Huan Wei Wei Sheng-Huan, Wang Sheng-Yuan, Chen Chang-Wen
- 5 Monitoring respiratory effort during invasive mechanical ventilation: An international survey of current practice. Presenter: Idunn Morris Morris Idunn, Telias Irene, Bihari Shailesh, Hodgson Carol, Serpaneto Ary, Saxena Manoj, Brochard Laurent, Goligher Ewan
- 6 PEEPtot-Pes guides individualized PEEP titration with noninvasive ventilation in patients with AECOPD

Presenter: Ge Huiqing Huiqing Ge, Liuqing Jiang

7 Is spontaneous breathing trial an accurate tool to predict post extubation effort to breathe?

Presenter: Mathieu Capdevila

Capdevila Mathieu, De Jong Audrey, Aarab Yassir, Vonarb Aurelie, Carr Julie, Molinari Nicolas, Capdevila Xavier, Jaber Samir

Chairpersons: A. Grassi, L. Heunks

8 Machine learning models could help clinicians predict which patients will fail non-invasive ventilation prior to its initiation

Presenter: Declan G. Bates

Yu Hang, Weaver Liam, Saffaran Sina, Tonelli Roberto, Laffey John G., Camporota Luigi, Scott Timothy E., Zhang Qingchen, Hardman Jonathan G., Clini Enrico. Bates Declan G.

9 Sigh in physiological predefined subgroups of patients with acute hypoxemic respiratory failure and ARDS - A secondary analysis of the PROTECTION pilot randomized clinical trial

Presenter: Emanuele Rezoagli

Rezoagli Emanuele, Fornari Carla, Fumagalli Roberto, Grasselli Giacomo, Volta Carlo Alberto, Navalesi Paolo, Knafelj Rihard, Brochard Laurent, Pesenti Antonio, Mauri Tommaso, Foti Giuseppe

10 Relationship between lung elastographymeasured regional pleural strain and tidal volume in healthy volunteers

Presenter: Sam Sedighi Sedighi Sam, Chraïbi Sarah, Roy Cardinal Marie-Hélène, Cloutier Guy, Girard Martin

11 Weaning nasal high flow from hypoxemic patients with a protocolized daily flow-reduction trail: A pilot study

Presenter: Zhe Li Li Zhe, Dai Simin, Qin Shaojie, Zhu Yibo, Zhao Zhanqi, Gao Yuan

13 Feasibility of delivering a 5-day normobaric hypoxia breathing in healthy volunteers in a hospital setting

Presenter: Medeiros Kyle
Lorenzo Berra, M.D.1, 2*, Kyle J. Medeiros, B.S.1*,
Francesco Marrazzo, M.D.1,2, Sarvagna Patel, M.D.1, 2,
David Imber, M.D.1, 2, Emanuele Rezoagli, M.D., Ph.D.1, 2,
Binglan Yu, Ph.D.1, Abraham Sonny, M.D.1, 2,
Edward A. Bittner, M.D. Ph.D.1, 2, Daniel Fisher, R.T.3,
Daniel Chipman R.T.3, Rohit Sharma, M.D., Ph.D. 2, 4, 5,
Hardik Shah, M.S.2,4,5,6, Brianna E. Gray, M.S., RDN7,
N. Stuart Harris, M.D.2,8 Fumito Ichinose, M.D., Ph.D.1, 2,
Vamsi Mootha, M.D.2, 4, 5

E-Poster board session | September 26 | GROUP 3



5.30 - 6.00 pm

Authors are requested to be at their assigned monitors for the period of time specified. During this time authors should be available for discussion of the E-Poster.

Chairpersons: G. Alcala, D. Talmor

1 Intermittent breathing of 300 parts-per million nitric oxide (iNO300) reduces Pseudomonas aeruginosa lung colonization in a swine model of pneumonia

Presenter: Binglan Yu

Yu Binglan, Winterton Dario, Buehl Talisa, Cenci Stefano, Okda Mohamed, Medeiros Kyle, Ekkapat Gamonmas, Bruno Giovanni, Santiago Roberta, Wanderley Hatus, Giammatteo Valentina, Nova Alice, Mietto Cristina, Spina Stefano, Safaee Bijan, Delaney Mary, Carroll Ryan, Ichinose Fumito, Shih Angela, Bry Lynn, Berra Lorenzo

2 Effect of PEEP on thorax and diaphragm geometry in mechanically ventilated mice and rats

Presenter: Wout Claassen

Claassen Wout, Wennen Myrte, Alles Lindy, Coolen Bram, Strijkers Gustav, Heunks Leo, Ottenheijm Coen

3 Use and implementation of advanced respiratory monitoring with esophageal pressure and electrical impedance tomography: Results of a survey

Presenter: Jantine Wisse

Wisse Jantine, Perchiazzi Gaetano, Somhorst Peter, Ista Erwin, Scaramuzzo Gaetano, Jonkman Annemijn

4 Comparison of a solid-state versus balloon esophageal catheter for estimation of pleural pressure

Presenter: Annemijn Jonkman

Van Oosten Julien, Goedendorp Nico, Flink Rutger, Schaart Rik, Heunks Leo, Jonkman Annemijn

5 An international factorial vignette-based survey of intubation decisions in acute hypoxemic r espiratory failure

Presenter: Christopher Yarnell

Yarnell Christopher, Paranthaman Arviy, Reardon Peter, Angriman Federico, Bassi Thiago, Bellani Giacomo, Brochard Laurent, De Grooth Harm Jan, Dragoi Laura, Gaus Syafruddin, Glover Paul, Goligher Ewan, Lewis Kimberley, Li Baoli, Kareemi Hashim, Tirupakuzhi Vijayaraghavan Bharath Kumar, Mehta Sangeeta, Julie Moore, Morris Idunn, Mellado-Artigas Ricard, Roman-Sarita Georgiana, Pham Tai, Sereeyotin Jariya, Tomlinson George, Wozniak Hannah, Yoshida Takeshi, Fowler Rob

6 Lung superimposed pressure and its associations with clinical parameters in pediatric ARDS (pARDS)

Presenter: Lorenzo Ball

Giardina Alberto, Maxenti Matilde, Damasio Maria Beatrice, Moscatelli Andrea, Ball Lorenzo

Chairpersons: E. Baedorf Kassis, A. Jonkman

8 Pendelluft physiology and pulmonary perfusion in unrepaired congenital diaphragmatic hernia is detectable with electrical impedance tomography Presenter: Jessica Shui

Shui Jessica, Victor Junior Marcus, Lavita Carolyn,

Lerou Paul, Berra Lorenzo

9 The ratio of lung elastance to respiratory system elastance in pediatric ARDS (PARDS) has minimal age dependence

Presenter: Yukie Ito

Ito Yukie, Vedrenne-Cloquet Meryl, Hotz Justin, Kyogoku Miyako, Takeuchi Muneyuki, Bhalla Anoopindar, Newth Christopher, Khemani Robinder

10 Brief report: PEEP can affect the eccentric workload of the diaphragm. A new ultrasound evaluation method

Presenter: Juan Martín Nuñez Silveira Nuñez Silveira Juan Martín, Gallardo Adrian, Ríos Fernando, Perchiazzi Gaetano

12 Assessment of pulmonary perfusion in pediatric acute hypoxic respiratory failure using electrical impedance tomography

Presenter: Giovanni Bruno

Bruno Giovanni, Alcala Glasiele Cristina, Victor Marcus, Blanchette Alex, Berra Lorenzo, Carroll Ryan

13 Differential effects of mechanical power on mortality among male and female critically ill patients

Presenter: Wichelhaus Lisa-Marie

Von Wedel Dario, Redaelli Simone, Shay Denys, Fosset Maxime, Hentges Max, Wachtendorf Luca J, Seibold Eva-Lotte, Suleiman Aiman, Chen Guanqing, Novack Lena, Costa Eduardo L, Amato Marcelo B P, Jung Boris, Talmor Daniel, Baedorf-Kassis Elias N, Schaefer Maximilian S

14 Do tidal volumes standardized to predicted body weight adequately account for differences in functional lung sizes of female versus male mechanically ventilated patients?

Presenter: Wichelhaus Lisa-Marie

Von Wedel Dario, Redaelli Simone, Fosset Maxime, Wachtendorf Luca J, Seibold Eva-Lotte, Shay Denys, Hentges Max, Chen Guanqing, Suleiman Aiman, Talmor Daniel, Costa Eduardo, Jung Boris, Amato Marcelo B P, Baedorf-Kassis Elias N, Schaefer Maximilian S





General information



Meeting venue

Joseph B. Martin Conference Center

77 Avenue Louis Pasteur Boston, MA 02115 (USA)



Official languages

English, no simultaneous translation.

Call for abstract

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

IMPORTANT: At least one of the Authors is required to be a registered participant to the event. Registration should be submitted online before **September 16, 2024.**

Organizing secretariat

Start Promotion Srl

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

Registration information

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

EthicalMedTech - CVS



2nd PLUG Physiology Symposium has been submitted on **EthicalMedTech - CVS** that confirming as Compliant.



2nd Plug Physiology Symposium has been approved by **CRCE for 18 credits**

Online registration

Registrations should be done online

at: www.startpromotion.it

Please read the instructions carefully before starting your registration.





General information



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.

* Please check your country COL (cost of living)

Afghanistan, Angola, Bangladesh, Benin, Bhutan, Bolivia, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Dem. Rep Congo, Rep. Côte d'Ivoire, Djibouti, Egypt, Arab Rep., Eritrea, Eswatini, Ethiopia, Gambia, The Ghana, Guinea, Guinea-Bissau, Haiti, Honduras, India, Jordan, Kenya, Kiribati, Korea, Dem. People's Rep, Kyrgyz Republic, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Micronesia, Fed. Sts. Morocco, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Papua New Guinea, Philippines, Rwanda, Samoa, São Tomé and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sri Lanka, Sudan, Syrian Arab Republic, Tajikistan, Tanzania, Timor-Leste, Togo, Tunisia, Uganda, Uzbekistan, Vanuatu, Vietnam, West Bank and Gaza, Yemen, Rep., Zambia, Zimbabwe.

Registration fees will include:

- Access to the Scientific Sessions and the exhibition area
- Catering services included in the program
- Name badge
- Meeting bag
- Attendance certificate

Online pre-registrations should be submitted before September 16th.

Later registrations are possible onsite with only payment by credit card, (no cash, no American express accepted).

The meeting bag is guaranteed only to pre-registered participants.



General information



instructions for payment

Payment of the registration fees can be made as follows:

Bank transfer

(free of charge for the beneficiary)

TO: Start Promotion S.r.l.

BANK: Banca Intesa San Paolo S.p.a.

IBAN: IT21X0306911310000027269163

SWIFT/BIC CODE: BCITITMM

As payment description please enter:

2nd Plug 2024, first & family name of the Registrant.

Credit Card

(Visa, Mastercard, Maestro, Moneta)

On-site secretariat

The Secretariat will be available on-site from 8.00 a.m. of Thursday September 26 to the closing of scientific sessions.

The registration will start according to the following opening hours:

Thursday September 26

8.00 am - 7.30 pm

Friday September 27

8.00 am - 6.00 pm

Saturday September 28

8.00 am - 12.30 pm

Catering services

Coffee Point and Lunches are located on the second floor of the meeting venue.





Hotel



Hotel suggestion with reduced fee

First come first served.



1 The Inn at Longwood Medical ***
400 mt from congress venue

Room Rate: \$289

Booking Code: **BIAN0924**

Book here your room



2 Hilton Garden Inn Boston/Brookline ***

1.4 km from congress venue

Room Rate: \$389 with breakfast included

Booking Code: **PLUG Meeting**





Hotel



Hotel suggestions

Please make sure to reserve your accommodation accordingly.



- The Westin Copley Place, Boston **
 15 minutes by public transport
- 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
- AC Hotel By Marriott Boston Cleveland Circle 3 ***28 minutes by public transport
- O Citizen-M Boston North Station ****
 26 minutes by public transport





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