

4th

PLUG Physiology Symposium

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Discussing research with a taste

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

Toronto, CANADA

Sept. 24-26 2026





4th PLUG Physiology Symposium

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Join us

For the fourth edition of the PLUG Physiology Symposium, we will meet in Toronto for two and a half days to listen and discuss the latest research data on respiratory physiology presented by leading groups from all continents, with a special keynote lecture in memory of Jordi Mancebo.

We will highlight the latest advances in the field, and a focused discussion will allow us to refine the latest methodological advances. Our focus is on original research, promoting young researchers, spending time discussing and facilitating interactions, and engaging with industry.





Executive Committee



Laurent Brochard, Toronto (CA)
Leo Heunks, Nijmegen (NL)

Tommaso Mauri, Milan (IT)
Daniel Talmor, Boston (US)

Scientific Committee



Glasiele Alcalá, Toronto (CA)
Elias Baedorf Kassis, Boston (US)
Giacomo Bellani, Trento (IT)
Lorenzo Berra, Boston (US)
Alejandro Bruhn, Santiago (CL)
Alexandre Demoule, Paris (FR)
Claudia Dos Santos, Toronto (CA)
Niall D. Ferguson, Toronto (CA)
Ewan Goligher, Toronto (CA)

Annemijn Jonkman, Rotterdam (NL)
Ling Liu, Nanjing (CN)
Ines Marongiu, Milan (IT)
Mariangela Pellegrini, Uppsala (SE)
Marco V. Ranieri, Bari (IT)
Oriol Roca, Barcelona (ES)
Arthur Slutsky, Toronto (CA)
Elena Spinelli, Milan (IT)
Irene Telias, Toronto (CA)

Faculty



Alejandro Bruhn, Santiago (CL)
Heder de Vries, Amsterdam (NL)
Claudia Dos Santos, Toronto (CA)
Huiqing Ge, Hangzhou (CN)
Ling Liu, Nanjing (CN)

David Maslove, Kingston (CA)
Leo Heunks, Nijmegen (NL)
Joaquín Pérez, Buenos Aires (AR)
Maximilian Schaefer, Boston (US)
Daniel Talmor, Boston (US)



8.00 am - 9.00 am	Opening Registration
9.00 am - 9.15 am	Welcome - L. Brochard, L. Heunks, T. Mauri, D. Talmor
9.15 am - 9.45 am	JORDI MANCEBO KEYNOTE LECTURE The future of precision medicine in the ICU D. Maslove
9.45 am - 11.05 am	BEST ABSTRACTS Protective ventilation in the transition phase L. Heunks, L. Liu
11.05 am - 11.30 am	Break
11.30 am - 1.30 pm	POSTERS PRESENTATIONS part 1
1.30 pm - 2.30 pm	Lunch
2.30 pm - 3.30 pm	BEST ABSTRACTS Weaning 2.0 T. Yoshida, A. Jonkman
3.30 pm - 4.00 pm	From physiological measures to clinical use: the Pocc case Presenter: H. de Vries - Speaker: L. Heunks
4.00 pm - 4.15 pm	Break
4.15 pm - 6.15 pm	POSTERS PRESENTATIONS part 2
6.15 pm - 6.30 pm	Keynote Talk <i>Exhibition area</i> <i>With the non-conditioning support of Air Liquide Medical Systems</i>
6.30 pm	Drinks and appetizers for all participants



7.30 am - 9.00 am	BREAKFAST SESSION <i>With the not non-conditional support of Hamilton Medical AG</i> The 60-second path: unlocking recruitability potential and individualized PEEP setting. An EIT-based approach enabled by PulmoMap Presenter: M. Amato
9.00 am - 9.15 am	Welcome L. Brochard, L. Heunks, T. Mauri, D. Talmor
9.15 am - 9.45 am	Why do clinical trials in ARDS fail? D. Talmor
9.45 am - 11.05 am	BEST ABSTRACTS Lung and diaphragm protection in special populations D. Talmor, I. Telias 
11.05 am - 11.30 am	Break
11.30 am - 12.30 pm	BEST ABSTRACTS Caring for the diaphragm A. Demoule, E. Spinelli 
12.30 pm - 1.30 pm	BEST ABSTRACTS Respiratory mechanics-based strategies L. Brochard, H. Ge 
1.30 pm - 2.30 pm	Lunch



2.00 pm - 2.30 pm	Are biomarkers of VILI available? C. Dos Santos
2.30 pm - 3.50 pm	BEST ABSTRACTS Mechanistic insights from the lab A. Bruhn, M. Pellegrini
3.50 pm - 4.10 pm	Break
4.10 pm - 5.30 pm	BEST ABSTRACTS Future perspectives for protective strategies G. Bellani, G. Alcalá
5.30 pm - 6.00 pm	Mechanical ventilation in male vs. female patients: physiological differences and disparities M. Schaefer



7.30 am - 9.00 am	BREAKFAST SESSION <i>With the not non-conditional support of Fisher & Paykel</i> Novelties in nasal high flow physiology Chair: L. Brochard • Diaphragm protection by nasal high flow - H. Ge • Prevention of PSILI by nasal high flow - T. Mauri
9.00 am - 9.15 am	Welcome L. Brochard, L. Heunks, T. Mauri, D. Talmor
9.15 am - 10.15 am	Plug journal club A. Bruhn, J. Perez
10.15 am - 10.30 am	Break
10.30 am - 12.00 pm	RESEARCH PROJECTS / NEW PROPOSALS • RECRUIT study - G. Alcala, A. Jonkman • BEARDS study - I. Telias • POLARIS study - M. Schaefer • Update on clinical trials from China - L. Liu



Best abstracts • September 24



9.45 am - 11.05 am



PROTECTIVE VENTILATION IN THE TRANSITION PHASE

L. Heunks, L. Liu

30 Clinical implications of tidal volume and support level during the first transition to pressure support ventilation. A multicenter cohort study

Dorado Javier, Accoce Matías, Pérez Joaquín, Emiliano Navarro, Plotnikow Gustavo, Gogniat Emiliano, Pratto Romina, Gilgado Daniela, Bezzi Marco, Ceschini Fernando, Gimenez María Lucía, Pereira Zamora María Evangelina, Domínguez Camila, Reinoso Mayra, Steinberg Emilio, Tâi Pham, Jose Dianti, Pablo Rodríguez, Irene Telias

8 Changes in respiratory rate identify mechanical response to PEEP in ARDS patient during pressure support ventilation

Pérez Joaquín, Dorado Javier Hernan, Accoce Matías, Telias Irene

40 Dyspnea, regional lung ventilation and effort in patients with acute respiratory failure

Parfait Mélo die, La Rosa Riccardo, Renaudier Marie, Leali Marco, Clerc Sébastien, Chiavieri Valentina, Le Stang Valentine, Jousse lin Vincent, Follot Théo, Kemoun Gabriel, Decavèle Maxens, Demoule Alexandre, Mauri Tommaso, Spadaro Savino, Dres Martin

27 Influence of PEEP and pressure support on electrical activity and post-inspiratory contractions of

the diaphragm during mechanical ventilation

Pando-Jauregui Edgar, Roque Basoalto, Consuelo Marambio-Coloma, Alejandro Bruhn, Damiani L. Felipe

02.30 pm - 03.30 pm



WEANING 2.0

T. Yoshida, A. Jonkman

19 Baseline inspiratory capacity constrains pressure generation and determines the mode of effort augmentation during spontaneous breathing trials

Lovern Ian, Chang Daniel, Justin Hotz, Ito Yukie, Khemani Robinder

15 Inspiratory effort estimated by airway occlusion pressure in the presence of intrinsic positive end-expiratory pressure

Gao Ran, Docci Mattia, Coppadoro Andrea, Brito Roberto, Goligher Ewan, Bellani Giacomo, Brochard Laurent

3 New approach to facilitate liberation from mechanical ventilation in tracheostomized patients: a high-flow connector generating dynamic PEEP

Taenaka Hiroki, Andi Muhammad Fadlillah Firstiogusran, Maezawa Takashi, Shrestha Kriti, Hashimoto Haruka, Iwata Hirofumi, Koyama Yukiko, Yoshida Takeshi


9.45 am - 11.05 am


LUNG AND DIAPHRAGM PROTECTION IN SPECIAL POPULATIONS

D. Talmor, I. Telias

60 Obesity amplifies the relationship between inflammatory phenotype and outcomes in acute respiratory distress syndrome

Sharif Massoud, Baedorf-Kassis Elias,
Pensier Joris, Fosset Maxime, Paschold
Béla-Simon, Goodspeed Valerie, Talmor
Daniel, Schaefer Maximilian

90 Expiratory muscles use during ventilation weaning after cardiac surgery is proportional to the degree of diaphragm dysfunction. A secondary analysis of the effort study

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

9 Permissive hypercapnia and clinical outcomes in mechanically ventilated, critically ill patients: A real-world cohort study

Marcus Carsten, Trefz Luisa, Wagner
Benedikt, Student Justus, Sahli
Sebastian, Paschold Bela Simon,
Wachtendorf Luca, Capdevila Mathieu,
Picker Olaf, Baedorf Kassis Elias, Talmor
Daniel, Schaefer Maximilian

37 Lung recruitability and EIT-guided PEEP optimization in pediatric acute respiratory distress syndrome

Katira Bhushan, Moulton Andrew,
Shah Neel, Marty Michelle, Cracchiolo
Lisa, Kobayashi Natsuki, Stanford-Hill
Riley, Karwal Nisha, Penn Ethan, Lin John

11.30 am - 12.30 pm


CARING FOR THE DIAPHRAGM

A. Demoule, E. Spinelli

83 Quantitative ultrasound for bedside detection of ventilator- induced diaphragm remodeling in critically ill patients

Buk Anna K., Assi Hisham, Bellissimo
Catherine A., Medici Francesca, Zanon
Paola, Landini Silvia, Belmonte Giovanni,
Eshetu Naomi, Qamar Khalil, Kang
Dahui, Schreiber Annia, Goffi Alberto,
Goligher Ewan C., Hysi Eno

21 Impact of PEEP on the modulation of respiratory effort during assisted ventilation

Lopez Arnello Diego, Morales Sebastian,
Olmos Matias, Retamal Jaime, Basoalto
Roque, Pettenuzzo Tommaso, Luca
Grieco Domenico, Mauri Tommaso,
Bruhn Alejandro, Damiani L. Felipe

34 Impact of diaphragm neurostimulation assisted ventilation on diaphragm and lung in a porcine model of acute lung injury

Liu Ling, Xueyan Yuan


12.30 pm - 01.30 pm


RESPIRATORY MECHANICS-BASED STRATEGIES

L. Brochard, H. Ge

87 A threshold of harm defines the relationship between driving pressure and mortality in ARDS

Alcala Glasiele, Costa Eduardo, Brower Roy, Plens Glauco, Slustky Arthur, Brochard Laurent, Goligher Ewan, Amato Marcelo

54 High-frequency oscillatory ventilation in adult ARDS: time to reconsider its role in the era of electrical impedance tomography?

De Melo Jade, Albuquerque Iana, Chavez Jaomar, Maccaroni Marco, Santos Ana Carolina, Pacheco Eder, Cruz Andrea, Batista Otilia, Gomes Susimeire, Nakamura Miyuki, Talmor Daniel, Amato Marcelo

57 Why PEEP should not be included in mechanical power: Implications from secondary analyses of a small physiological study and randomized controlled trials

Capdevila Mathieu, Wagner Benedikt, Braeuer Ben, Wichelhaus Lisa-Marie, Pensier Joris, Von Wedel Dario, Sahli Sebastian D., Marcus Carsten, Student Justus, Paschold Bela-Simon, Talmor Daniel, Baedorf-Kassis Elias N., Schaefer Maximilian S.

02.30 pm - 03.50 pm


MECHANISTIC INSIGHTS FROM THE LAB

A. Bruhn, M. Pellegrini

33 Diaphragm pacing shields the hippocampus from injury in invasively ventilated rats

Li Jingyi, Shi Zhonghua, Zhang Meizhizi, Zhang Mulin, Qi Xiang, Cheng Hao, Shi Guangzhi, Heunks Leo, Doorduyn Jonne,

82 Regional ventricular mechanics after selective lung collapse assessed by photon-counting 4D CT-based finite element modeling in swine

Araos Joaquin, Dong Gening, Satalin Joshua, Basran Parminder, Porter Ian, Tollefson Christopher, Butcher Jonathan

7 Effects of anesthetic agents and paralysis on end-expiratory gas lung volume: a crossover porcine study under mechanical ventilation - the PARASED-LUNG study

Raimondi Cominesi Davide, Menga Luca, Samant Payal, Tay Anthony, Brito Roberto, Gao Ran, Rodriguez Guerineau Luciana, Restivo Andrea, Jerath Angela, Mcvey Marc, Rezoagli Emanuele, Post Martin, Brochard Laurent



39 Hyperinflammatory subphenotype is mechanistically associated with self-inflicted lung injury in experimental lobar pneumonitis

Spinelli Elena, Madotto Fabiana, Maretti Alice, Damia Anna, Leali Marco, Slobod Douglas, Mansour Nadia, Uslenghi Clarissa, Damarco Francesco, Rosso Lorenzo, Grasselli Giacomo, Vaira Valentina, Mauri Tommaso

04.10 pm - 05.30 pm



FUTURE PERSPECTIVES FOR PROTECTIVE STRATEGIES

G. Bellani, G. Alcalá

68 Immunomodulatory effects of inhaled nitric oxide at 300 parts per million (iNO300) in a swine pneumonia model and healthy human volunteers

Li Hua-Jie, Safaee Fakhr Bijan, Marutani Eizo, Dong Run, Wang Bin, Mereto Elisa, Wu Chenghao, Yu Binglan, Berra Lorenzo

36 Individualized pressure support to optimize respiratory mechanics during helmet assistance: a randomized crossover clinical trial

Rosà Tommaso, Cardu Alessandro, Menga Luca Salvatore, Volpe Nicoletta, Chiapparelli Giampaolo, Sellas Armand, Tempo Gaia, Mastropietro Claudia, Stronati Alessandro, Fouéré Lucie, Delle Cese Luca, Maggiore Salvatore M., De Pascale Gennaro, Grieco Domenico Luca, Antonelli Massimo

6 Reassessing hemodynamic effects of PEEP and fluid administration on cardiac preload using transmural CVP

Lai Christopher, Alzuhairi Rayan, Asiri Abdulrahman, Slobod Douglas, Magder Sheldon

80 Regional pulmonary vascular dynamic assessment in pulmonary hypertension using electrical impedance tomography

De Melo Jade, Travassos Phillipe, Albuquerque Iana, Scotini Rafael, Pacce Pedro, Iope Daniela, Camargo Erick, Nakamura Miyuki, Alves-Jr José Leonidas, Souza Rogério, Amato Marcelo



Posters Session 1 • September 24



11.30 am - 01.30 pm



SCREEN 1

T. Mauri, L. Liu

16 Respiratory system compliance may identify prognostically distinct phenotypes in pediatric ARDS with severe hypoxemia

Ito Yukie, Chang Daniel, Hotz Justin, Bhalla Anoopindar, Newth Christopher, Khemani Robinder

31 Non-invasive assessment of inspiratory effort predicts extubation failure across three spontaneous breathing trial modalities: a multicenter observational study

Bellissimo Catherine A., Murgolo Francesco, Morris Idunn S., Plens Glauco M., Roman-Sarita Georgiana, Grieco Domenico L., Spadaro Savino, Ranieri Marco V., Grasso Salvatore, Goligher Ewan C., Del Sorbo Lorenzo

47 Inhaled nitric oxide dose-dependently increases pulmonary perfusion, yielding opposite oxygenation effects in well- versus poorly-ventilated lungs: an experimental study

Dong Run, Xin Yi, Gaulton Tim, Gerard Sarah, Restivo Andrea, Delle Vergini Michele, Berra Lorenzo, Cereda Maurizio

50 Autonomic dysfunction and elevated pulmonary capillary pressure in the development of pulmonary edema

Busana Mattia, Chiumiento Carlo, Giosa Lorenzo, Herrmann Peter, Gattarello Simone, Moerer Onnen

SCREEN 2

L. Heunks, E. Spinelli

63 Performance of non-invasive airway occlusion maneuvers for assessing inspiratory drive, effort and lung stress in mechanically ventilated children

Ijland Marloes, Roesthuis Lisanne, Doorduyn Jonne, Heunks Leo

64 A noninvasive method for continuous monitoring of inspiratory effort during assisted ventilation

Brito Roberto, Docci Mattia, Madorno Matias, Cominesi Davide Raimondi, Restivo Andrea, Menga Luca, Vieira Fernando, Rodrigues Antenor, Goligher Ewan, Telias Irene, Rezoagli Emanuele, Brochard Laurent

72 Bench validation of a novel non-invasive method for monitoring tidal volume, respiratory rate, and inspiratory effort during high-flow nasal oxygen

Castro-Sayat Mauro, Ferreyro Bruno, Telias Irene

84 A novel automated tool for partitioning elastic and resistive work of breathing done by the patient and the ventilator

Madorno Matías, Fernandez Martín, Telias Irene, Baedorf Kassis Elias, Brochard Laurent



Posters Session 1 • September 24



11.30 am - 01.30 pm



SCREEN 3

L. Brochard, A. Jonkman

32 Physiological phenotypes of response to non-invasive respiratory support after extubation

Menga Luca S., Murgolo Francesco, Grieco Domenico L., Plens Glauco M., Spadaro Savino, Goligher Ewan C., Antonelli Massimo, Del Sorbo Lorenzo, Grasso Salvatore

42 Radiation-free assessments of lung injuries using ultrasound and photoacoustic imaging

Faeth Christopher, Sanwal Rajiv, Sauntharajan Babishaa, Frazer Callum, Leung Katie, Couture Heath, Kurosawa Hikaru, Medici Francesca, Zanon Paola, Annia Schreiber, Goffi Alberto, Lee Warren, Hysi Eno

10 Dynamic and static measurements of lung stress during assisted mechanical ventilation in patients with acute hypoxemic respiratory failure: a multi-center validation study

Plens Glauco, Dianti Jose, De Vries Heder, Hotz Justin, Greendyk Richard, Roman-Sarita Georgiana, Alcalá Glasiele, Sahetya Sarina, Ferguson Niall, Amato Marcelo, Khemani Robinder, Heunks Leo, Costa Eduardo, Goligher Ewan

14 Influence of leaks and mask design on CO₂ clearance during non-invasive ventilation. A combined bench and physiological study

Wongtirawit Nattapat, Butterworth Rosie, Vieira Fernando, Schreiber Annia, Ko Matthew, Brochard Laurent

SCREEN 4

D. Talmor, I. Telias

17 Construction and validation of a personalized computational model to predict regional ventilation of ARDS lungs under mechanical ventilation

Hurtado Daniel, Perez Agustín, Avilés-Rojas Nibaldo, Retamal Jaime, Nieman Gary, Araos Joaquin

22 Changes in EIT pulsatility during PEEP titration in pediatric ARDS

Leeds Hayden, Klein Margaret, Olosó Bashira, Chang Daniel, Deakers Timothy, Iyer Narayan, Newth Christopher, Khemani Robinder, Bhalla Anoopindar

26 Antimicrobial effects of 300 partes per million inhaled nitric oxide extend beyond the delivery site in a swine model of pseudomonas aeruginosa pneumonia

Mereto Elisa, Dong Run, Li Huajie, Wang Bin, Cristina Mietto, Bijan Safaee Fakhr, Hatus V. Wanderley, Mary L. Delaney, Angela Shih, Lynn Bry, Binglan Yu, Lorenzo Berra

35 Intraoperative changes in the airway opening pressure and pulmonary complications

Trahtenberg Uriel, Melnichuck Zoryana, Kapilov Olga, Brochard Laurent, Slutsky Arthur



11.30 am - 01.30 pm



SCREEN 5

A. Demoule, G. Alcalá

- 44 Postoperative ventilation phenotypes are modifiable: eit-guided PEEP titration improves ventilation homogeneity and cardiopulmonary function**

Hoshino Taiki, Yoshida Yuto, Maezawa Takashi, Iwata Hirofumi, Taenaka Hiroki, Hashimoto Haruka, Koyama Yukiko, Yamada Tomomi, Yoshida Takeshi

- 45 Posture is not physiologically neutral in ARDS: trunk inclination increases lung stress at constant PEEP in a BMI-dependent manner**

Retamal Jaime, Benites Martin, Bihari Shailesh, Guerin Claude, Langer Thomas, Marrazo Francesco, Mezidi Mehdi, Wiersema Ubbo, Bruhn Alejandro, Bugedo Guillermo

- 55 Individual-lung positive end-expiratory pressure in a large animal model of asymmetrical lung injury: preliminary results**

Menga Luca Salvatore, Raimondi Cominesi Davide, Samant Payal, Gao Ran, Docci Mattia, Von Friedl Eva, Jonkman Annemijn, Somhorst Peter, Tay Anthony, Rodriguez Guerineau Luciana, Bouch Sheen, Brito Alvarez Roberto Enrique, Mcvey Mark, Post Martin, Brochard Laurent

- 58 Zero-flow expiratory time: determinants and association with physiological outcome in intubated acute hypoxemic respiratory failure patients**

Fumagalli Jacopo, Nicora Giacomo, Leali Marco, Spinelli Elena, Telias Irene, Brochard Laurent, Grasselli Giacomo, Mauri Tommaso

SCREEN 6

M. Schaefer, K. Vaporiđi

- 78 Reverse triggering during non-invasive ventilation in patients with acute hypoxemic respiratory failure: description of a novel phenomenon and physiological characteristics**

Mastropietro Claudia, Menga Luca Salvatore, Pisani Lara, Vega Pittao Laura Maria, Grieco Domenico Luca, Delle Cese Luca, Volpe Nicoletta, Rosà Tommaso, Cardu Alessandro, Tempo Gaia, Brito Alvarez Roberto Enrique, Raimondi Cominesi Davide, Maggiore Salvatore Maurizio, Brochard Laurent, Nava Stefano, Antonelli Massimo

- 18 Association between expiratory flow waveform deformation and respiratory effort during reverse triggering: an exploratory analysis**

Marambio-Coloma Consuelo, Miranda-Hurtado Martin, Basoalto Roque, Bruhn Alejandro, Damiani L. Felipe

- 41 Estimation of inspiratory effort in non-ventilated subjects using a mouth occlusion maneuver: a proof-of-concept study**

Zalaquett Felipe, Lopez Diego, Basoalto Roque, Hurtado Daniel, Damiani Felipe



11.30 am - 01.30 pm



SCREEN 7

L. Berra, M. Pellegrini

70 Differences in regional energy dissipation in bilateral and asymmetrical lung injury: an experimental study

Pellegrini Mariangela, Sousa Mayson, Dubo Sebastian, Menga Luca, Post Martin, Brochard Laurent

86 How does ventilation distribution change across PEEP levels?

Amaral Marcela, Alcala Glasiele, Dianti Jose, Roman-Sarita Georgiana, Brochard Laurent, Amato Marcelo, Goligher Ewan

5 Ability of machine learning models to accurately predict respiratory effort in mechanically ventilated patients

Iftikhar Andaleeb, Dianti Jose, Lovblom Leif, Ferguson Niall, Chan Timothy, Goligher Ewan

SCREEN 8

A. Bruhn, C. Dos Santos

28 3D EIT V/Q transition mapping of perfusion redistribution during inhaled nitric oxide in early vs late AHRF

Delle Vergini Michele, Restivo Andrea, McCormack Genevieve, Rezoagli Emanuele, Victor Marcus, Xin Yi, Cereda Maurizio

38 PCV distributes mechanical energy favorably when referenced to compliance, compared to VCV

Stanford-Hill Riley, Penn Ethan, Moulton Andrew, Kobayashi Natsuki, Crachiolo Lisa, Marty Michelle, Pavak Todd, Jonkman Annemijn, Katira Bhushan

49 High-density EEG can quantify respiratory-brain coupling in healthy subjects

Doorduyn Jonne, Welleweerd Arjen

59 Physiological impact of chest wall closure in infants post cardiac surgery. Implications for mechanical ventilation

Rodriguez Guerineau Luciana, Reise Katherine, Floh Alejandro, Granton John, Feder Joshua, Nonoyama Mika, Katira Bhushan, Barron David, Foroutan Farid, Schwartz Steven, Brochard Laurent


04.15 pm - 06.15 pm

SCREEN 1

T. Mauri, L. Liu

56 Effects of head-of-bed elevation on respiratory mechanics during controlled mechanical ventilation

Cardoso Dos Santos Ana Carolina, Melo Jade, Sousa Anne Caroline, Pacheco Eder, Salazar Jaomar, Amato Marcelo

67 Red blood cell transfusion and extubation success in anemic mechanically ventilated ICU patients: a target trial emulation

Capdevila Mathieu, Ahrens Elena, Pensier Joris, Tenge Theresa, Sahli Sebastian, Marcus Carsten, Student Justus, Baedorf Kassiss Elias, Talmor Daniel, Jaber Samir, Schaefer Maximilian

69 Association of a CT-based heterogeneity metric with survival following prone positioning in acute respiratory failure

Sablewski Armin, Billig Sebastian, Becher Tobias, Max-Carl Wachter, Datz Janina, Brei Marie, Wichmann Karl-Robert, Mueller Kei Wieland, Biehler Jonas

SCREEN 2

L. Heunks, E. Spinelli

61 Targeting pressure-muscle-index to avoid ventilatory over-assistance during pressure support ventilation: preliminary data from a cross-over physiological study

Stomaci Caterina, Balzani Eleonora, Lassola Sergio, Cipulli Francesco, Zen Marie, Bellani Giacomo

13 Proportional assist ventilation versus pressure support ventilation for difficult weaning: similar liberation with lower mechanical power and mean airway pressure

Siyu Zhang, Weiming Shen, Kailiang Duan, Shuyang Jiang

79 Effects of mild hypothermia on a dual-hit model of acute lung injury

Perchiazzi Gaetano, Blokhin Ivan, Pellegrini Mariangela, Sancho Ferrando Elena, Larsson Anders Olof, Von Seth Magnus, Lipcsey Miklos



04.15 pm - 06.15 pm



SCREEN 3

L. Brochard, A. Jonkman

23 A prospective observational cohort study of Bolivian pregnant women residing at 3,600–4,100 m above sea level.

Bolchini Andrea, Santa Cruz Mercado Laura, Moses Scott, Villalobos Rita, Zabala Suárez Dilma, Guzmán Monica, Arora Garima, Arora Pankaj, Chávez Navarro Edgar, Berra Lorenzo

43 Association of time to intubation and daily awake prone positioning exposure with respiratory mechanics at intubation.

Olmos Matias, Esperatti Mariano, Gallardo Adrian, Busico Marina, Vitali Alejandra, Bruhn Alejandro, Fuentes Nora

SCREEN 4

D. Talmor, I. Telias

73 Pendelluft dynamics during the spontaneous breathing trial and their association with liberation from mechanical ventilation.

Brito Roberto, Phoophiboon Vorakamol, Menga Luca, Ko Matthew, Vieira Fernando, Rodrigues Antenor, Schreiber Annia, Sun Nannan, Sousa Mayson L. A., Docci Mattia, Brault Clement, Brochard Laurent

89 Non-invasive estimation of respiratory effort based on least square fitting mechanics distortion on assisted ventilation - Model exploration.

Vargas Cristian, Graf Jeronimo

12 Predictors of extubation failure in ICU patients: a systematic review and meta-analysis with tiered evidence synthesis.

Shige Li, Mengyun Zhou, Xuening Tao, Huiqing Ge



04.15 pm - 06.15 pm



SCREEN 5

A. Demoule, G. Alcala

25 Absolute V/Q mapping provides superior assessment of ventilation-perfusion distribution and oxygenation in ARDS

Delle Vergini Michele, Restivo Andrea, McCormack Genevieve, Amonkar Gaurang, Rezoagli Emanuele, Victor Marcus, Xin Yi, Cereda Maurizio

46 High PEEP is associated with increased renal stiffness and venous congestion in ARDS

Retamal Jaime, Benites Martin, Santis César, Ford Paula, Avila Eduardo, Kattan Eduardo, Basoalto Roque, Bruhn Alejandro, Buggedo Guillermo, Damiani Felipe, López Diego, Olivares Maarten, Besa Cecilia, Mura Joaquín, Valenzuela Daniel, Amthauer Macarena, Oviedo Vanessa, Cofré Paulina

51 Airway closure and expiratory flow limitation characterize a PEEP-responsive expiratory phenotype in mechanically ventilated infants with acute bronchiolitis

Varela Javier, Hernandez Eduardo, Varas Francisca, Perez Cristobal, Aranis Nadine, Carvajal Ricardo, Bruhn Alejandro

SCREEN 6

M. Schaefer, K. Vaporidi

62 Diaphragm thickening fraction poorly reflects transdiaphragmatic pressure in mechanically ventilated children

Ijland Marloes, Roesthuis Lisanne, Doorduyn Jonne, Heunks Leo

81 Optimal PEEP assessment with EIT and transpulmonary compliance in patients with acute hypoxemic respiratory failure

Pettenuzzo Tommaso, Scaramuzzo Gaetano, Castelli Arianna, Zarantonello Francesco, Pacchiarini Giorgia, Sella Nicolò, Monteleone Francesco, Ferrara Pierluigi, Grieco Domenico Luca, Rezoagli Emanuele, Antonelli Massimo, Foti Giuseppe, Grasselli Giacomo, Spadaro Savino, Mauri Tommaso, Boscolo Annalisa

29 Real time EIT monitoring of pneumothorax drainage

Restivo Andrea, Delle Vergini Michele, Ribeiro De Santis Santiago Roberta, Rezoagli Emanuele, Xin Yi, Cereda Maurizio

48 Coupling of diaphragm contraction velocity and regional inspiratory flow during unassisted breathing trials in prolonged mechanical ventilation

Kuo Yao-Wen, Jerng Jih-Shuin



04.15 pm - 06.15 pm



SCREEN 7

L. Berra, F. Damiani

52 Do diaphragm and parasternal intercostal muscle thickening reflect inspiratory effort during loading and unloading in healthy subjects?

Fazzini Brigitta, Charlotte Hofma, Tommaso Rosa, Jinyu Zhou, Arjen Welleweerd, Daniel R.j. De Boode, Leo Heunks, Zudin Puthuchear, Jonne Doorduyn

77 Personalization of positive end-expiratory pressure using electrical impedance tomography and transpulmonary pressure monitoring during pressure support ventilation in patients with acute hypoxemic respiratory failure: the PEPSI study

Dissegna Piero, Sella Nicolò, Pettenuzzo Tommaso, Mara Bassi, Francesco Zarantonello, Alessandro Vidotto, Benedetta Villano, Felipe Damiani, Annalisa Boscolo

2 PEEP titration during laparoscopic gynaecological surgery in the trendelenburg position based on ventilation and perfusion changes measured by EIT

Yaroshetskiy Andrey, Orlushin Denis, Yaroshetskaya Anna, Avdeev Sergey

71 Pendelluft during decremental PEEP trials: association with deviation from best PEEP, collapse, and overdistension.

Paschold Béla-Simon, Marcus Carsten, Alcala Glasielle, Wichelhaus Lisa-Marie,

Braeuer Ben L P, Pensier Joris, Capdevila Mathieu, Jungwirth Bettina, Baedorf-Kassis Elias, Talmor Daniel, Amato Marcelo B P, Graessner Martin, Schaefer Maximilian S.,

SCREEN 8

A. Bruhn, C. Dos Santos

88 Esophageal catheters characterization: a bench study.

Castro-Sayat Mauro, Gallardo Adrian, Nuñez Silveira Juan Martin, Moracci Roque

65 In vitro study of paediatric and adult esophageal catheters under different intrathoracic conditions.

Rodriguez Guerineau Luciana, Nallasamy Karthi, Reise Katherine, Ko Matthew, Bassi Thiago, Raimondi Cominesi Davide, Menga Luca S., Brochard Laurent

66 Electrical impedance tomography in paediatric critical care. retrospective study.

Rodriguez Guerineau Luciana, Reise Katherine, Nallasamy Karthi, Mema Briseida, Gaetani Melany, Quach Shirley, Nonoyama Mika

92 Safety and performance of a respiratory-synchronised transcutaneous electrical stimulation algorithm in critically ill mechanically ventilated patients: the HEECAP-I pilot study

Xavier Pilar



General information



Meeting venue

**Li Ka Shing Knowledge
Institute (LKSKI)**

Unity Health Toronto

209 Victoria St, Toronto,
ON M5B 1X3, Canada

Organizing secretariat

Start Promotion Srl

Via Soperga, 10 - 20127 Milano (IT)

Phone: + 39 02 67071383

E-mail: info@startpromotion.it

Official language

MEETING

English, no simultaneous translation.

POSTER SESSION

English, no simultaneous translation.

Registration information

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

Online registration

Registrations should be done

online at: www.startpromotion.it



Please read the instructions carefully before starting your registration.

On-site secretariat

The 4th PLUG Meeting secretariat will be available on-site. From 7.30 a.m. of Thursday September 24th to the closing scientific session, according to the following opening hours:

Thursday September 24th

8.00 a.m. - 8.00 p.m.

Friday September 25th

7.00 a.m. - 6.00 p.m.

Saturday September 26th

7.00 a.m. - 2.00 p.m.

MedTech Europe Code

This event has been declared compliant with the MedTech Europe Code of Ethical Business Practice EMT-26-11040



General information



Registration fees

	BEFORE April 30 th	UNTIL Sept 1 st	ONSITE
Physician	€ 250.00	€ 350.00	€ 450.00
Trainee, Nurse, AHP	€ 100.00	€ 100.00	€ 100.00
Low, middle income countries *	€ 100.00	€ 100.00	€ 100.00
Sponsor exhibitor employee	€ 450.00	€ 450.00	€ 450.00
Non sponsor companies employee	€ 700.00	€ 700.00	€ 700.00

Legal VAT included

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 Príncipe, 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.

[more info click here](#)



Registration fees will include:

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

Instructions for payment:

Payment of the registration fees can be made as follows:

• Credit Card

(Visa, Mastercard, Maestro, Moneta)

• Wire Transfer

Account Holder: Start Promotion Srl

Bank: Intesa Sanpaolo S.p.A.

IBAN: IT21X0306911310000027269163

SWIFT/BIC: BCITITMM

Payment Reference: Meeting Name, Participant's Full Name.



Acknowledgements



We are grateful to the following Companies for their contribution to the success of the 4th PLUG Meeting

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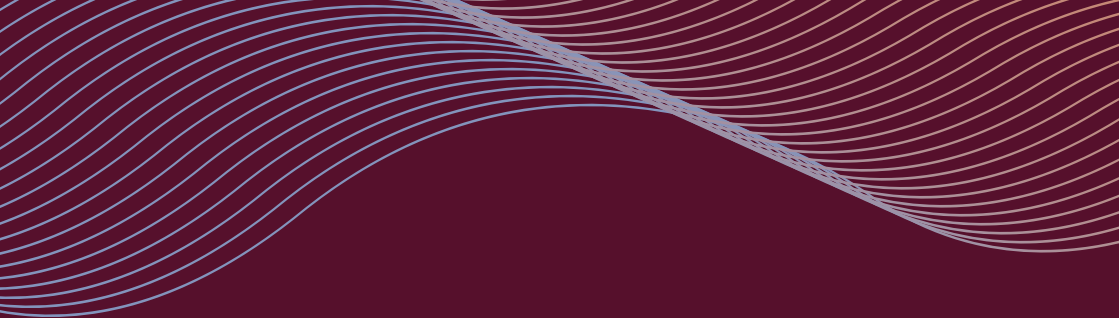
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TELSAIR

*See you at
the 2027 edition!*

More information will follow





the PLVG

www.plugwgroup.org

