

## Introduction to *Journal of Thoracic Disease* new column: Critical Care Frontier and Horizon

It is my great pleasure to introduce our new column of Critical Care Frontier and Horizon in the *Journal of Thoracic Disease*. This column designs to feature original investigations, review articles, expert opinions, editorial and case report series in critical care medicine.

Our mission in the Critical Care Frontier and Horizon is to collect the latest development of critical care medicine that will be freely available to clinicians, researchers, stakeholders and publics who are interested.

The term “adult respiratory distress” was used by Ashbaugh *et al.* in 1967 (1) to describe 12 adult patients who had acute onset of tachypnea, hypoxemia, and loss of lung compliance after a variety of physical and biochemical insults such as hypoxemia, trauma, aspiration, and viral infection. The modern term “acute respiratory distress syndrome (ARDS)” is categorized from mild, moderate to severe form of the lung disorder as per the recent Berlin definition (2). The hospital mortality of ARDS remains at approximately 35% (3). Numerous investigative studies aiming at the treatment of underlying diseases or its physiological consequences have failed to reduce ARDS mortality, and management remains supportive with lung-protective mechanical ventilation (4). A promising approach is investigating cell-based therapy for ARDS. This is cutting-edge research, using mesenchymal stromal cells (MSCs) as drugs to help to repair lung damage.

In this inaugural column of Critical Care Frontier and Horizon at the *Journal of Thoracic Disease*, Dr. Horie and colleagues provide an excellent comprehensive overview in the fields of cell therapy in ARDS. The authors summarize updated results of preclinical experiments and clinical studies, outline mechanisms of action of MSCs, and discuss potential challenge of cell therapy and future research direction. We are hoping that this review article will help physicians, scientists and shareholders understand the current status of MSC therapy in ARDS and encourage translational research collaboration between basic and clinical investigators to help shape the future cell therapy.

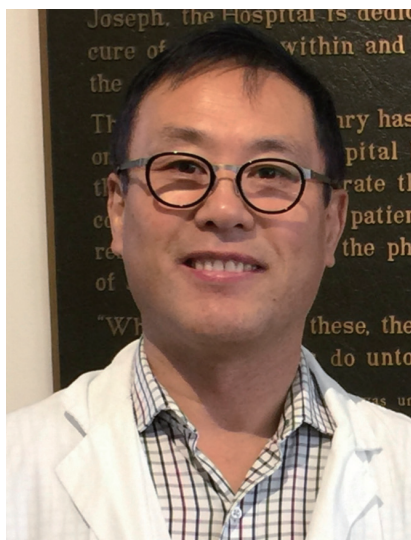
Finally, we are delighted to call for papers in this column—Critical Care Frontier and Horizon—that serves as an open platform for rapid publication of advanced basic and clinical research.

### Acknowledgements

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### References

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