

## **Solnatide: A New Drug for Treatment of High- Altitude Pulmonary Edema**

**Attapon Cheepsattayakorn<sup>1,2\*</sup> and Ruangrong Cheepsattayakorn<sup>3</sup>**

<sup>1</sup>10<sup>th</sup> Zonal Tuberculosis and Chest Disease Center, Chiang Mai, Thailand

<sup>2</sup>Department of Disease Control, Ministry of Public Health, Thailand

<sup>3</sup>Department of Pathology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

**\*Corresponding Author:** Attapon Cheepsattayakorn, 10<sup>th</sup> Zonal Tuberculosis and Chest Disease Center, 143 Sridornchai Road, Changklan, Muang, Chiang Mai, 50100, Thailand.

**Received:** March 13, 2017; **Published:** March 21, 2017

Solnatide, a new synthetic peptide agent that directly activate the epithelial sodium channel. This mechanism allows reduction of extravascular lung water, blunting reactive oxygen species production, and improvement of pulmonary function. The results of this new agent was announced on November 15<sup>th</sup>, 2016 by a privately biotechnology company in collaboration with a professor from the Medical University in Chongqing, China. In a rat model study, conducted in a hypobaric hypoxic chamber simulating an altitude of 4,500 meters, followed by simulated mountain altitude of 6,000 meters. Significantly lowering bronchoalveolar-lavage- fluid protein and pulmonary water content by reducing the synthesis of cytokines and the inflammatory responses than high-altitude control rats was demonstrated in solnatide-treated rats, in addition to improving the stability of the alveolar capillary barriers. These significant findings contribute to reduction of leakage of protein into the alveolar fluid. Significantly higher occluding expression and less hemorrhage and disruption of the alveolar-capillary barriers than those of high-altitude controls was demonstrated.

In conclusions, clinical application of solnatide to the patients with exposure to a hypobaric or high-altitude hypoxic environment is a rationale.

**Volume 3 Issue 2 March 2017**

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