

March 26th, 2009. Medical breakthrough for treatment of Acute Lung Injury

Vienna, Austria – Based on intensive research and comprehensive *in-vitro* and *in-vivo* studies APEPTICO Forschung und Entwicklung GmbH, a Vienna development stage biotechnology company, has clarified the mode of action of its development compound AP301. Up to date there exists no approved drug molecule for the treatment of Acute Lung Injury. Up to 100,000 patients in Europe could benefit from the new discovery.

In collaboration with the Medical Collage of Georgia (Augusta, USA) the research team of APEPTICO has developed a new concept for treating the life-threatening condition Acute Lung Injury / Acute Respiratory Distress Syndrome.

Acute Lung Injury affects approx. 100.000 patients per year in Europe. Today, no direct treatment is possible due to lack of effective medicine. The mortality rate for Acute Lung Injury ranges from 30% to 60%. According to the Austrian Ministry of Health several hundred patients die each year of Acute Lung Injury, which is a much higher figure in comparison to AIDS.

Acute Lung Injury is characterised by tissue injury of the lung followed by formation of a lung oedema as fluid penetrates from blood capillaries into lung tissue. Tissue damage and lung oedema prevent normal gas exchange, i.e. oxygen from the breathing air is not delivered to the blood. To save patients lives instant intensive care treatment is needed.

By making use of PEPBASE™ - APEPTICO's own database - the synthetic peptide AP301 was designed based on a structural element of a human protein. Most recent research data generated by APEPTICO's co-founder Prof. Rudolf Lucas at the Medical Collage of Georgia revealed fundamental aspects of the mode of action of AP301.

The official name of the development drug AP301 has already been defined by the European Medicines Agency as "Human Tumour Necrosis Factor-derived Peptide".

"At the beginning, we had two different options for manufacture of the peptide AP301, either by biotechnology or by chemical synthesis. We favoured the chemical synthesis as this way saves a lot of development time and reduces cost significantly" comments Univ.-Doz. Dr. Bernhard Fischer, CEO of APEPTICO. "We aim to assist patients with Acute Lung Injury as fast as possible".

Most recent research data demonstrate that AP301 counter-acts the hyper-permeability of lung endothelial and epithelial cells and tissues caused by reactive oxygen species and bacterial toxins. AP301 reduces the phosphorylation of myosin light chain and inhibits the activation of protein kinase C. This in turn leads to activation of the apical sodium ion channel in pulmonary alveoli. Taken together, AP301 leads to regression of the lung oedema and protects the lung tissue from further injury.

Further animal studies demonstrated that besides application of AP301 for Acute Lung Injury, further treatment options are possible. AP301 increases oxygen supply after lung transplantation and is effective in treatment of bacterial or viral pneumonia.

Currently, APEPTICO focuses on securing next round of financing. "We have already worked out a model for financing and shareholding with investors", says CEO Bernhard Fischer. Despite of the critical situation of the financial market APEPTICO is confident that Austrian business angel and private and institutional investors invest into APEPTICO.

Since November 2007 APEPTICO is hosted by INITS, the Vienna academic ApluB center. INITS actively supports research teams and new company projects by providing business development services, infrastructure and start-up grants. INITS aims to transform basic research results into company formations.

Contact:

Univ.-Doz. Dr. Bernhard Fischer
APEPTICO Forschung und Entwicklung GmbH
c/o INITS, Rudolf Sallinger Platz 1
1030 Wien, Österreich

Tel.: +43-(0)664-1432919
Fax.: +43-(0)664-1477280
Mail: b.fischer@apeptico.com
URL: www.apeptico.com