

# TECHNOLOGY TRANSFER LICENSING OPPORTUNITIES



Fondazione IRCCS  
Ca' Granda  
Ospedale Maggiore  
Policlinico

Sistema Socio Sanitario



Regione  
Lombardia

## METHOD FOR DETERMINING INHOMOGENEITY IN LUNG TISSUE

WO 2013/088336



Applications:  
- Diagnostical and clinical uses.



Key benefits:  
- Damage prevention in patients undergoing mechanical ventilation.  
- Determination of stress raisers on CT scan images.



Offer:  
- Licensing out.  
- Co-Development.



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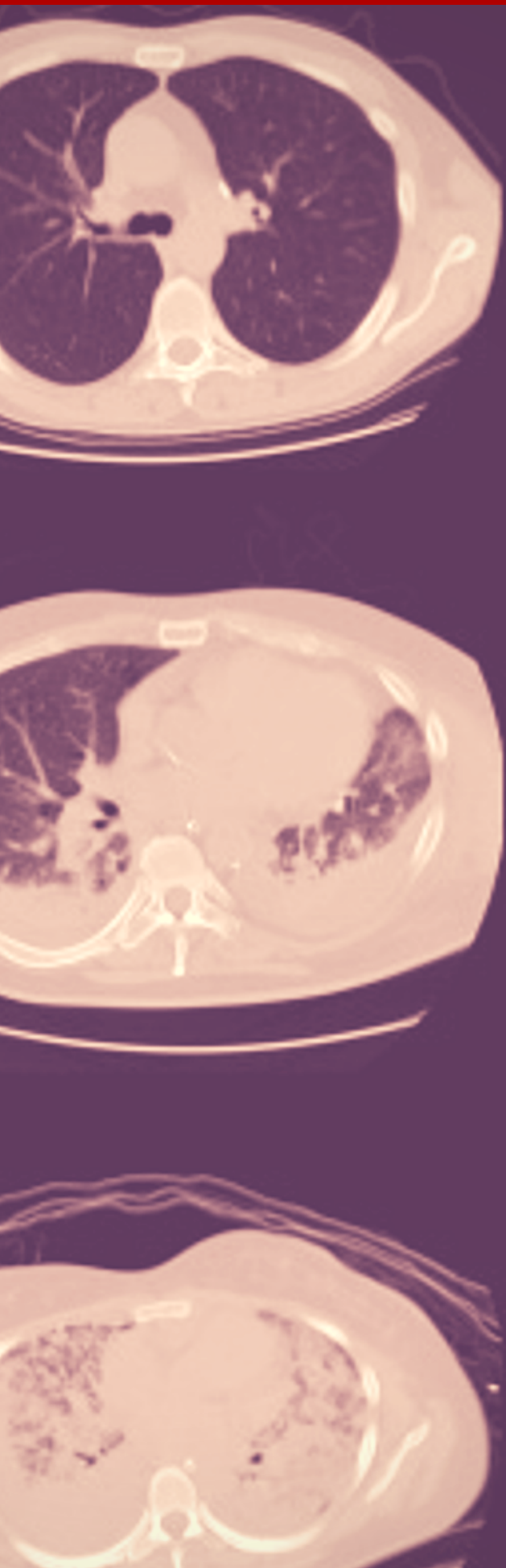


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## METHOD FOR DETERMINING INHOMOGENEITY IN LUNG TISSUE

### INVENTION

An innovative method for the treatment of patients undergoing mechanical ventilation that allows lung damage prevention.

### BACKGROUND

Mechanical ventilation is used to restore adequate oxygenation in several diseases, such as acute respiratory distress syndrome (ARDS); at high pressures it may seriously damage lungs (edema diffused in the whole tissue) due to non-physiologic stress (trans-pulmonary pressure) and strain (inflated volume to functional residual capacity ratio).

Therefore, the medical need to identify a strain-stress threshold above which ventilator-induced lung damage can occur and the need to assess the lung inhomogeneity in a quantitative manner is impelling.

### TECHNOLOGY

In inhomogeneous materials, forces are locally concentrated at discontinuities which act as pressure multipliers: a pleural pressure below the threshold observed in healthy lung, if multiplied sufficiently, may locally reach an injurious level. The inventors developed a software which determines the stress raisers on CT (Computed Tomography) scan images.

### INVENTORS

Gattinoni Luciano, Cadringer Paolo, Cressoni Massimo.

### INTELLECTUAL PROPERTY RIGHTS

- Patent granted in Italy, USA, Europe.

### OFFER

- Licensing out & co-development.

### CONTACT

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