Objective
IL-8, Aquaporin-1 and iNO synthase in extracorporeal CO₂ removal in smoke and burn injured sheep.

Study Design
Randomized prospective experimental outcome study comparing extracorporeal CO₂ removal plus ventilator (n = 5) with ventilator treatment alone (n = 5).

Study Population
10 adult Suffolk ewes.

Methods
Smoke inhalation injury (LD 50) plus 40% 3rd degree burn.

Results
Specific decrease of IL-8, myeloperoxidase activity, and reduction of neutrophils in lung parenchyma in animals that received percutaneous extracorporeal carbon dioxide removal (AVCO₂R). AVCO₂R allowed significant reduction of tidal volumes and respiratory rates.