NON RESPIRATORY FUNCTIONS OF LUNG:

- **BLOOD FILTER**
  - Pulmonary capillary bed acts as a blood filter to prevent small clots and detached cells from reaching the systemic circulation

- **BLOOD RESERVOIR**
  - High capacitance pulmonary circulation accommodates 16% of total blood volume in the supine position and 9% erect, and can redistribute volume to the vital organs in hypotensive shock

- **METABOLIC FUNCTION**
  - Conversion of AT1 to ATII by angiotensin converting enzyme in pulmonary vascular endothelium
  - Metabolism of serotonin (almost complete), noradrenaline (30%), bradykinin (80% inactivated), PGE2/PGF2a and leukotrienes

- **SYNTHETIC FUNCTION**
  - Synthesis of immunoglobulins (IgA), surfactant, prostaglandins, peptides (eg, substance P), heparin by mast cells, collagen and elastin

- **ACID BASE REGULATION**
  - Accomplished by alteration of arterial PCO2

- **HOST DEFENCE**
  - Secretion of IgA
  - Removal of airborne particles by mucociliary elevator
  - Phagocytosis by alveolar macrophages

- **DRUGS**
  - Takes up fentanyl
  - Delivery route for inhaled agents

- **PHONATION**

- **TEMPERATURE CONTROL**
  - Mainly upper airways