



## GLOSSARY OR TERMS

### ~A~

**Adrenal cortex:** The outer layer of the adrenal glands, which sit atop the kidneys

**Agonist:** A drug that triggers an action from a cell or another drug or hormone

**AIP:** Acute Interstitial Pneumonia is a disease of unknown cause leading to extensive acute lung injury followed by widespread scarring

**Alveolus:** Microscopic sac of the lung where oxygen and carbon dioxide are exchanged

**Amyloid:** A hard protein deposit resulting from accumulation of certain proteins in the body

**Amyloidosis:** Deposits of amyloid proteins causing disease

**Angiogenesis:** The physiological process involving the growth of new blood vessels from pre-existing vessels

**Antagonist:** A drug that blocks or counteracts a stimulus of a cell or neutralizes another drug

**Antibody:** Any proteins in the body that are generated in reaction to a self or foreign protein or other molecules and neutralize them

**Antigen:** Substance that stimulates an immune response and antibody formation when introduced into the body

**Antitussive:** Capable of relieving coughing

**Apoptosis:** A kind of cell death which the cell itself programs

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### ~A~

**Armamentarium:** The collection of equipment and methods in the practice of medicine

**Aspiration:** The breathing in of fluids and solids into the lung which causes inflammation

**Auscultation:** Act of listening with a stethoscope

**Autoantibody:** An antibody thought to act against self protein or cells of the organism in which it is formed

**Autoimmune:** A condition where the immune system of the host acts against the host to cause injury of tissue, often associated with autoantibodies

**Autosome:** A chromosome that is not a sex chromosome

**Azathioprine:** A chemotherapy drug now used for immunosuppression in organ transplantation and treatment of autoimmune disease

### ~B~

**BAL:** Bronchoalveolar lavage during which cells and fluids in the airspaces of the lung are washed out with saline (salt solution)

**Basophil:** A white blood cell that contributes to inflammation

**B cells:** A type of lymphocyte crucial to immune defense, which produces antibodies after stimulation

**Biopsy:** Removal of tissue from a living person or organism

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## GLOSSARY OR TERMS

### ~B~

**BOOP:** Bronchiolitis obliterans organizing pneumonia

**Bronchiectasis:** Enlargement of the airways of the lung beyond what is normal. It may be related to chronic infection or scarring of the lung mucopurulent matter

**Bronchiole:** Thin walled tubular extensions of a larger bronchus that delivers air to the alveoli of the lung

**Bronchiolitis:** Obliterans A disease of the lungs where the bronchioles are inflamed and plugged with granulation tissue

**Bronchopneumonia:** Inflammation of the lungs spreading from infection of the bronchi

**Bronchoscope:** A slender flexible tubular instrument that transmits light into the airways of the lungs which permits direct observation and the obtaining of small tissue samples

**Bronchus:** A branching tube that conducts air into and out of the lung which varies in size from a half inch to barely visible to the naked eye

**Biotechnology:** The use of living organisms or their products to make or modify a substance

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## GLOSSARY OR TERMS

### ~C~

**CBC:** Complete blood count

**Cell:** Portion of protoplasm usually enclosed in a membrane, ultimate element of organic structures

**Chemokine:** Protein that activates white blood cells and causes them to move towards its origin and is involved in an inflammatory response

**Chromosome:** A DNA-containing linear body of the cell nuclei of plants or animals, responsible for determination of hereditary characteristics; each human cell has 23 pairs of chromosomes

**Clubbing:** Deformity of the fingers and fingernails associated with a number of diseases, mostly of the heart and lung

**Colchicine:** A poisonous alkaloid used to treat inflammatory diseases such as gout

**Collagen:** The major protein in scar tissue

**Concomitant:** Accompanying Conidia Spores derived from fungi that may be dispersed into the air and breathed into the lungs causing an infection or inflammation

**Cor Pulmonale:** Failure of right side of heart caused by chronic lung disease

**Corpuscle:** Minute body especially forming distinct part of organism

**Corticosteroids:** A steroid compound produced in the adrenal cortex and having anti-inflammatory and metabolic activity when given in large doses

**Cryptogenic:** Of obscure or unknown origin

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## GLOSSARY OR TERMS

### ~C~

**Cyanosis:** Blue colored skin

**Cyto-:** Referring to cell

**Cytogenesis:** The formation and development of cells

**Cytokine Group:** of proteinaceous signally compounds that are used extensively for inter-cell communications

**Cytology:** The study of the formation, structure, and function of cells

**Cytolysis:** The dissolution of a cell

**Cytomegalovirus:** A member of the herpes virus family often referred to as CMV and one of the most common human viruses

### ~D~

**Dendritic Cells:** These are potent antigen presenting cells that stimulate T cells which recognize the antigen. They are present in small quantities in tissue that are in contact with the external environment, manly skin but also lining of the nose and lung

**Desquamate:** To shed, peel, or scale off

**DIP:** Desquamative Interstitial Pneumonia

**Dlco:** Diffusion coefficient for carbon monoxide, a method for measuring the transfer of oxygen from the air into blood in the lung

**DNA:** Deoxyribonucleic Acid–Nucleic acid that is found in the cell nucleus and that is the carrier of genetic information

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## GLOSSARY OR TERMS

### ~D~

**Dys-**: Abnormal, impaired

**Dysplasia**: Altered shape, size, organization of cells

**Dyspnea**: Shortness of breath that produces marked discomfort and anxiety

### ~E~

**ECM**: Extracellular matrix which is the framework comprised of proteins and carbohydrates and supports the cells in any organ

**Edema**: Leakage of fluid from blood vessels into tissue which causes swelling

**Elastin**: The major protein in elastic fibers which give the lung elastic properties

**Emboli**: Any object found in the venous or arterial circulation that normally is not present, most commonly a blood clot

**Endothelium**: A thin layer of flat cells that lines blood and lymphatic vessels

**Enzyme**: Any of numerous proteins or conjugated proteins produced by living organisms and functioning as biochemical catalysts in living organisms

**Eosinophilia**: An abnormal increase in the type of a white blood cell called the eosinophil which is named after its color with special staining

**Eosinophils**: Type of white blood cell found in blood stream that fight infections from parasites and are involved in allergies

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### ~E~

**Epithelial cells:** Cells that have a free surface on one side and are attached to tissue on the other side and contain no blood vessels such as skin or the bronchi in the lung

**Epithelium:** A layer composed of connected epithelial cells

**Epstein–Barr virus:** A member of the herpes virus family, one of the most common human viruses which causes many cases of infectious mononucleosis

**Erythrocyte:** A disk-shaped cell with no nucleus that carries oxygen attached to the molecule hemoglobin

**Etiology:** The study of why things occur

**Extracellular:** Located or occurring outside a cell

### ~F~

**FEV1:** Forced expiratory volume in the first second

**Fibroblast:** A cell that produces connective tissue which promotes scarring

**Fibrocyte:** Circulating connective tissue blood-borne cell

**Fibroid:** Resembling or composed of fibrous tissue

**Fibrosis:** The formation of fibrous tissue, as in a reparative or reactive process after tissue injury

**Foci:** Plural of the word focus, the region of a localized reaction to infection and tissue repair in the body

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**FPF:** Familial Pulmonary Fibrosis

**FVC:** Forced vital capacity of lung is the amount of air that can be expelled from the lung as forcefully as possible after taking in a maximal breath

### ~G~

**Gene:** Unit of heredity in chromosome that directs the formation of proteins

**Gene expression:** The process by which a gene's DNA sequence is converted into the structure and functions of a cell

**Genome:** A complete haploid set of chromosomes

**Genomics:** Study of gene expression in tissues and cells

**Germ:** A microorganism that is an agent causing a disease

**Gradulation tissue:** Immature scar tissue that forms prior to the laying down of more mature scar tissue

**Granulocyte:** A granular leukocyte

**Granuloma:** A nodular collection of inflammatory cells with a well recognized architecture

## GLOSSARY OR TERMS

### ~H~

**Hanman–Rich Syndrome:** A clinical name or syndrome associated with Acute Interstitial Pneumonia

**Haploid:** Having the number of chromosomes present in the normal germ cell, equal to half the number in the normal somatic cell

**Hemo–, Hema–:** Blood Hepatic Of, pertaining to, or resembling the liver

**Histiocytosis:** A disease caused by the clustering of specialized inflammatory cells called histiocytes in affected organs

**Histology:** The microscopic structure of tissue

**Histopathology:** The pathology of changes in diseased tissue

**Honeycombing:** Resembling a honeycomb (hexagonal, thin-walled cells) in structure or pattern

**HRCT:** High Resolution Computed Tomography, a special type of CT scan

**Hyaline:** Material that is translucent or transparent like glass when examined under the microscope

**Hyperplasia:** A nontumorous increase in the number of cells in an organ or tissue with consequent enlargement of the affected part

**Hypoxia:** Deficiency of oxygen in arterial blood

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## GLOSSARY OR TERMS



**Idiopathic:** Cause is unknown

**IFN:** Interferons, cellular proteins produced in response to inflammation and infection which prevent replication of virus within an infected cell and regulate immune response

**ILD:** Interstitial lung diseases

**Immune response:** The reactions of the immune system to foreign substances

**Immunotherapy:** The treatment of disease by use of antigenic preparations

**In vitro:** In a test tube or lab environment

**In vivo:** In a living body

**Incidence:** Number of people per unit of population (usually 100,000) who get a given disease over a period of one year

**Interferons:** See IFN

**Interleukin:** Biologically active proteins which regulate inflammation and are secreted by many types of white blood cells

**Interstitial:** Tissue wall between air sacs of lung and tissue surrounding the blood vessels and bronchi

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## GLOSSARY OR TERMS

### ~L~

**Lamina:** A thin plate, sheet, or layer of specialized proteins and carbohydrates that act as an anchor for cell attachment

**Lavage:** Washing with salt water (saline solution) of a hollow organ

**LCM:** A powerful method for procuring pure cells from specific microscopic regions of tissue sections

**Leukocyte:** Any of the white or colorless nucleated cells occurring in blood and areas of Inflammation

**Ligands:** Molecule, as an antibody, hormone, or drug that binds to its specific receptor to initiate changes in the metabolism of cells

**Lumen:** The inner open space of a tubular organ (i.e. blood vessel)

**Lung Capacity:** Amount of air in the lung, six liters of air in normal adults

**Lymphocytes:** Type of white blood cell with two categories, T cell and B cell which orchestrate an immune response

### ~M~

**Macrophages:** White blood cells with the capacity to ingest and kill invading microbes and to mop up after tissue injury

**Mast cell:** A granule-containing cell found in tissue that amplifies inflammation particularly in allergic diseases

**Matrix:** A situation or surrounding substance within which something develops or is contained

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**Mesenchymal:** Embryonic connective tissue develops from the mesoderm (germ layer) of an embryo

**Microarray:** The collection of microscopic DNA spots attached to a solid surface forming an array for the purpose of monitoring expression levels for thousands of genes simultaneously

**Microbicide:** An agent that kills microbes

**Monocyte:** A large phagocyte white blood cell which, when it enters tissue, develops into a macrophage

**Mucopurulent:** Containing mucus and pus

**Murine:** Mice

**Myo-:** Muscle

### ~N~

**Necrosis:** The pathologic death of living tissue in a plant or animal

**Neoplasm:** Poorly or unregulated growth of tissue that leads to tumor formation, both benign and malignant

**Neutrophilia:** An excess of neutrophils, the chief white blood cell, in the circulation related to inflammation

**NHLBI:** National Heart, Lung, Blood Institute, a part of National Institutes of Health (NIH)

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### ~N~

**NIH:** National Institutes of Health, part of U.S. Department of Health and Human Services

**NSIP:** Nonspecific interstitial pneumonia

### ~O~

**Opacities:** Areas of increased tissue density on lung imaging that are due to collection of fluid or cells in the airspaces or interstitium

**Osteopontin:** Protein implicated in the regulation of wound repair and new tissue formation

### ~P~

**Parenchymal:** Cellular material, essential substance of an organ

**Paroxysm:** A spasm or fit

**Pathogen:** Agent causing a disease

**Pathogenesis:** Mode of development of a disease

**Pathology:** The scientific study of the nature of disease

**PDGF:** Platelet-derived growth factor family of proteins that bind to cell surface receptors and stimulate the growth of cells

**Penetrance:** The degree or frequency with which a gene manifests its effect

**Perfusion:** Circulation of blood through an organ

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## GLOSSARY OR TERMS

### ~P~

**PFT:** Pulmonary function test

**Phagocyte:** Cells that ingest foreign matter and cell debris in the body

**Phenotype:** Set of observable characteristics of individual or group as determined by genotype or environment

**Placebo:** An inactive substance used as a control in an experiment

**Plasma cells:** Large anti-body producing cells that develop from B cells

**Pleiotropism:** The control or determination of more than one characteristic or function by a single gene

**Pleura:** Either of two membranous sacs, each of which lines one side of the thoracic cavity and envelops the contiguous lung

**Pneumo:** Lung, pulmonary

**Pneumoconiosis:** Lung disease from dust inhalation

**Pneumonia:** Acute or chronic disease marked by inflammation of the lungs

**Pneumothorax:** Collapse of a lung due to leakage of air into the space between the lung and chest wall

**Polycythemia:** Abnormally high level of red blood cells

**Polymorphism:** Single point substitution in a nucleic acid of a gene that may affect the expression of the gene

**Polymyositis:** Muscle inflammation

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## GLOSSARY OR TERMS

### ~P~

**Polypeptide:** A peptide containing between 10 and 100 amino acids

**Prednisone:** An analog of cortisone that is used as an anti-inflammatory agent

**Prevalence:** Number of people who have a disease at one point in time

**Protein:** Molecules consisting of many amino acids that have a wide variety of functions in the body

**Proteomics:** The large-scale study of proteins, particularly their structures and function in health and disease

**Pulmonary hypertension:** High blood pressure in the arteries that supply the lungs

### ~Q~

### ~R~

**Rales:** Clicking, rattling, or crackling noises heard on auscultation of the lungs during inhalation

**RBID:** Respiratory bronchiolitis interstitial lung disease

**Receptor:** A specialized molecule on the surface of a cell that changes intracellular metabolism after receiving external stimuli

**Refractory:** Stubborn to, resist

**Reflux:** A flowing back

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## GLOSSARY OR TERMS

### ~R~

**Reticular:** Net like

**RV:** Residual volume, the amount of air in the lung at the end of maximal expiration

### ~S~

**Sarcoidosis:** Disease of unknown cause characterized by the formation of granulomatous inflammation in many organs

**SCCOR:** Specialized Center of Clinically Oriented Research

**Scleroid:** Hard or hardened, indurated

**Scleroma:** An abnormally hard patch of bodily tissue

**Sclerosis:** Thickening or hardening of a body part from the abnormal accumulation of connective tissue

**SCOR:** Specialized Center for Research

**Sequela:** A pathological condition resulting from a disease

**Sepsis:** A condition caused by the bacterial contamination of blood from a festering wound; also known as blood poisoning

**Septum:** A thin partition or membrane between two cavities

**Silicosis:** Lung condition from the inhalation of silica particles

**Somatic Cell:** A bodily cell other than a germ cell

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## GLOSSARY OR TERMS

### ~S~

**Spirograph:** An instrument for registering the depth and rapidity of respiratory movements

**Spirometer:** An instrument for measuring the volume of air entering and leaving the lungs

**Stellate:** Arranged or shaped like a star, radiating from a center

**Stem cells:** Cells from which any type of cell may derive

**Stroma:** Supporting tissue of organs

**Surfactant:** Surface active substance that reduces surface forces of water in the lung

### ~T~

**Tachypnea:** Excessively rapid respiration

**T cells:** Small white blood cells that orchestrate immune defenses

**TGF-beta:** Transforming growth factor-beta, a factor that is central to wound repair

**Therapeutic:** Having healing or curative powers

**Thoracotomy:** Surgical incision of the chest wall

**Titers:** Concentration of a substance in solution

**TLC:** Total lung capacity, the total amount of air in the lung at full inspiration

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## GLOSSARY OR TERMS

### ~T~

**TNF-alpha:** Tumor necrosis factor-alpha, a cytokine that amplifies inflammation

**Tomography:** Any of several techniques for making x-ray pictures of a predetermined plane section of a solid object by blurring out the images of other planes

**Tubercle:** Nodule or swelling, lesion of tuberculosis

**Tuberculosis:** Lesions of the lung, bone caused by a microorganism called Mycobacterium Tuberculosis

### ~U~

**UIP:** Usual Interstitial Pneumonia, the abnormal pattern of lung tissue associated with IPF

### ~V~

**VC:** Vital capacity of lung, the amount of air that can be maximally expelled after full inspiration

**Virus:** Submicroscopic microbe that can live only in live cells

### ~W~

### ~X~

### ~Y~

### ~Z~