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Mn: A01

Tree Category: Body Regions

Term	Ms
Abdominal Core	The torso region located deep within the abdominal area involved in attaching the TORSO to the SPINE and the PELVIC FLOOR. Muscles in the abdominal core are important in POSTURAL BALANCE, spine stability and protection against BACK INJURIES.

Mn: A02

Tree Category: Musculoskeletal System

Term	Ms
Mandibular Canal	Internal aspect of the mandible from the MENTAL FORAMEN to the mandibular foramen which serves as the conduit for the INFERIOR ALVEOLAR NERVE and the inferior alveolar artery and vein. Bifid and trifid mandibular canals are normal anatomical variants.

Mn: A08

Tree Category: Nervous System

Term	Ms
Dorsolateral Prefrontal Cortex	The upper surfaces of the prefrontal cortex comprising the rostral parts of the superior frontal gyrus and the middle frontal gyrus. It is involved in EXECUTIVE FUNCTION.
Insular Cortex	A pyramidal shaped region of cerebral cortex located deep below the lateral fissure in PRIMATES. It is surrounded by the SUPERIOR TEMPORAL GYRUS, the rostral PARIETAL LOBE, the INFERIOR FRONTAL GYRUS and the ORBITAL GYRI. It is the primary gustatory cortex and is involved in sensorimotor and somatosensory as well as socioemotional functions.
Primary Visual Cortex	An area comprised of parts of OCCIPITAL LOBE and the CALCARINE SULCUS of the visual cortex in humans with direct connectivity to the LATERAL GENICULATE NUCLEUS. It is the end organ where visual stimuli are received in the visual cortex.

Mn: A09

Tree Category: Sense Organs

Term	Ms
	The VESTIBULAR APPARATUS in the inner ear, the eye, the CENTRAL NERVOUS SYSTEM and various nerves, tracts and nuclei connecting them as they relate to PROPRIOCEPTION and SPATIAL ORIENTATION. Dysfunction in the vestibular system is associated with various diseases (e.g., VESTIBULAR DISEASES; LABYRINTH

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Term	Ms
	DISEASES; VESTIBULAR NEURONITIS; BENIGN PAROXYSMAL POSITIONAL VERTIGO; and MOTION SICKNESS).

Mn: A11

Tree Category: Cells

Tree Category: Cells		
Term	Ms	
Biomolecular Condensates	Membraneless intracellular compartments formed through liquid-liquid phase separation from the surrounding CYTOPLASM or nucleoplasm or by the concentration of proteins and nucleic acids into droplets as they aggregate on static cellular structures such as CELL MEMBRANES. Examples include CELL NUCLEOLI; STRESS GRANULES; PARASPECKLES; HISTONE LOCUS BODIES; and POSTSYNAPTIC DENSITIES.	
Cytoplasmic Ribonucleoprotein Granules	Non-membranous subcompartments containing RIBONUCLEOPROTEIN complexes. They are found in the CYTOPLASM and often share multiple protein and/or RNA components. Membraneless RNP subcompartments found in the nucleus are referred to as nuclear bodies (e.g., PARASPECKLES).	
Decellularized Extracellular Matrix	A biomaterial with a network of macromolecules with varying composition and organization of tissue-specific proteins and polysaccharides. It is prepared from organs and tissues by decellularization (e.g., with a detergent) to mimic native microenvironment for tissue-specific functions.	
Dense Core Vesicles	Membrane-bound electron-dense organelles, 50–200 nm in size found in neurons and endocrine cells. Dense core vesicles package cargo molecules (NEUROPEPTIDES; NEUROTRANSMITTERS and MiRNAs) in a granular internal matrix. Neuronal dense core vesicles release their cargo content by EXOCYTOSIS.	
Germ Cell Ribonucleoprotein Granules	Cytoplasmic structures organized by RIBONUCLEOPROTEINS involved in RNA regulation in GERM CELLS.	
Immunological Memory Cells	Antigen-specific immunologic cells which have a potential to form IMMUNOLOGIC MEMORY providing a rapid and robust response against a second encounter with the same antigen. Immunologic memory cells typically include B-Lymphocytes T-Lymphocytes and sometimes adaptive NK cells. Building immunologic memory cells is a basis of how a vaccine affords immunity to a specific pathogen.	
Lamellar Bodies	Endolysosomal organelles surrounded by multi-lamellar MEMBRANE LIPIDS. They are involved in diverse functions in storage and secretion of cellular LIPIDS. Lamellar bodies in the TYPE 2 PNEUMOCYTES produce and secrete PULMONARY SURFACTANT (e.g., DIPALMITOYL PHOSPHATIDYLCHOLINE). Lamellar bodies in the skin produce and secrete neutral lipids to provide	

Term	Ms
	hydrophobic barrier. Pathological accumulation of lamellar bodies are also known in lipid storage diseases (e.g.,LCAT DEFICIENCY; and HERMANSKY-PUDLAK SYNDROME).
Memory B Cells	A subset of activated B cells generated in response to primary immune challenge or immunization which are capable of giving rise to antibody-secreting cells upon re-challenge (see IMMUNOLOGIC MEMORY). Memory B cells feature many discrete properties indicative of differentiation through ISOTYPE SWITCHING and/or IMMUNOGLOBULIN SOMATIC HYPERMUTATION for rapid and robust recall of specific antibody responses.
Memory T Cells	A subset of activated T cells generated in response to primary immune challenge or immunization upon re-challenge (see IMMUNOLOGIC MEMORY). Memory T cells feature many discrete properties indicative of various differentiation such as expression pattern of CCR7 RECEPTORS and can be divided into central memory and effector memory T cells.
Microneme	Secretory organelle in the apical complex of parasitic phylum APICOMPLEXA (e.g., TOXOPLASMA GONDII). Microneme plays a role in junction formation between the parasite and the host cell by releasing micronemal proteins, which bind to receptors on the host cell surface enabling parasite attachment.
Nuclear Bodies	Dynamic intranucleoplasmic membraneless structures which concentrate various nuclear factors. Nuclear bodies exchange components with NUCLEOPLASM and participate in various RNA metabolisms unlike nuclear INCLUSION BODIES which aggregate most often foreign or inactive pathological biomolecules.
Nuclear Speckles	Membraneless intranucleoplasmic subcompartments or nuclear domains in which proteins related to RNA metabolism (e.g., SPLICING FACTORS) are dynamically localized.
Paraspeckles	Nuclear bodies in which architectural LONG NCRNAS (e.g., NEAT1) sequester various regulatory proteins regulating gene expression including RNA modification (e.g., A-to-I RNA EDITING) and MICRORNAS maturation.
Processing Bodies	Cytoplasmic RNP granules constitutively found in eukaryotic cells. Various proteins related to RNA regulation including RNA decay are found in P-bodies. P-bodies and STRESS GRANULES both sequester inactive mRNPs via different pathways. In P-bodies mRNAs from the stalled translational machinery are deadenylated and condensed for sequestration.
Promyelocytic Leukemia Nuclear Bodies	Spherical intranuclear membraneless bodies nucleated by PROMYELOCYTIC LEUKEMIA PROTEIN and various other proteins containing small ubiquitin-related modifier (SUMO) interaction motif (SIM) and/or sumoylated proteins (e.g., Sp100 protein). Promyelocytic leukemia nuclear bodies regulate

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Term	Ms
	posttranslational modifications of partner proteins (e.g., SUMOYLATION) which in turn lead to modulation of various biological processes.
Shelterin Complex	A TELOMERE cap complex consisting of telomere-specific proteins in association with telomeric DNA such as telomeric dsDNA-sDNA junction. They are involved in the protection of chromosome ends and TELOMERASE regulation and play a role in CELLULAR SENESCENCE and ageing-related pathology. In general it consists of six mostly TELOMERE-BINDING PROTEINS (POT1, RAP1, TIN2, TPP1, TRF1, and TRF2).
Stress Granules	Cytoplasmic granules composed of RIBONUCLEOPROTEINS which form only when stress-activated pathways stall translation initiation. Stress granules and processing bodies both sequester inactive mRNPs. Stress granules clear mRNPs through autophagy and may interact with P-BODIES.
Stromal Vascular Fraction	A fraction of ADIPOSE TISSUE prepared to enrich in STEM CELLS with the capacity for multi-lineage differentiation. It is used in various applications for its tissue regeneration and immunomodulation activities.

Mn: A12

Tree Category: Fluids and Secretions

Term	Ms
Respiratory Aerosols and Droplets	Physiological aerosols and droplets expelled during coughing, sneezing, speaking and exhalation. Depending on the size, aerodynamic distribution or concentration they may play a role in transmission of infectious respiratory diseases.
Secretome	The set of all the soluble factors and extracellular vesicles secreted into the extracellular space by cells, or an organ or organism. In some studies the secretome only refers to the proteins secreted into the extracellular space.

Mn: A15

Tree Category: Hemic and Immune Systems

Term	Ms
Memory B Cells	A subset of activated B cells generated in response to primary immune challenge or immunization which are capable of giving rise to antibody-secreting cells upon rechallenge (see IMMUNOLOGIC MEMORY). Memory B cells feature many discrete properties indicative of differentiation through ISOTYPE SWITCHING and/or IMMUNOGLOBULIN SOMATIC HYPERMUTATION for rapid and robust recall of specific antibody responses.
Memory T Cells	A subset of activated T cells generated in response to primary immune challenge or immunization upon re-challenge (see IMMUNOLOGIC MEMORY). Memory T cells

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Term	Ms
	feature many discrete properties indicative of various differentiation such as expression pattern of CCR7 RECEPTORS and can be divided into central memory and effector memory T cells.

Mn: A18

Tree Category: Plant Structures

Term	Ms
	Any conical shaped aerial plant structure with scales or bracts arranged spirally around axis. It includes familiar seed cones of PINE TREE and other GYMNOSPERMS, pollen cones (e.g., microstrobilus), spore capsules in HORSETAIL and CLUBMOSS and mature female catkins or seed cones of ALDER and BIRCH trees. Cone morphology is important in gymnosperm classification.

Mn: A21

Tree Category: Viral Structures

Term	Ms
Artificial Virus- Like Particles	Artificially prepared viral sub-particles devoid of viral genetic material. They are often formed by self-assembly of exogenously expressed viral proteins and are often used for a vaccine development, cell expression and bioprocessing platforms.

Mn: B01

Tree Category: Eukaryota

Term	Ms
Afrotheria	A placental mammal superorder that contains ELEPHANTS; MANATEES; DUGONGS; SIRENIANS; HYRAXES; AARDVARKS; elephant shrews (Macroscelidea); TENRECS; Golden moles (Chrysochloridae). Largely classified based on DNA sequence afrotherian mammals are diverse in morphology but share some common anatomical features (e.g., appearance of four-lobed ALLANTOIS and long and mobile snout).
Andrographis paniculata	A plant species in the genus Andrographis, family Acanthaceae. Its bitter tasting leaves have been used in traditional medicine and contain labdane-type diterpene lactone andrographolide.
Besnoitia	An apicomplexan parasitic genus of the family SARCOCYSTIDAE. Infection by Besnoitia is BESNOITIASIS.
Brucea javanica	A plant species in the genus Brucea and the family SIMAROUBACEAE. It was formerly classified in the family ANACARDIACEAE. Its seeds have been used as

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Term	Ms
	traditional medicine and contain various QUASSINS including bruceines and brusatol.
Candida auris	A species of yeast in genus Candida. C. auris infection is most often associated with immunocompromised patients in healthcare settings. INVASIVE CANDIDIASIS and colonization pose a treatment challenge when multidrug resistant strains are involved.
Centaurea benedicta	A plant species of the genus CENTAUREA and family ASTERACEAE. Members contain sesquiterpene lactone CNICIN.
Coptis chinensis	A plant species of the genus COPTIS and family RANUNCULACEAE. Dried rhizome (huang-lian) has been used in TRADITIONAL CHINESE MEDICINE. It contains isoquinoline ALKALOIDS (e.g., BERBERINE and coptisine).
Orycteropodidae	An order of placental mammals in the superorder AFROTHERIA found in Africa. It has single species Orycteropus afer.
Reynoutria	Genus of flowering herbaceous perennial plants and vines in the family Polygonaceae. Some sources include plants formerly classified under Fallopia here under Reynoutria.
Salvia hispanica	A plant species of the Salvia genus known for its seeds which are used in foods and supplements. Common name chia sometimes includes Salvia columbariae.
Tenrecidae	A placental mammal family in superorder Afrotheria.
Vermilingua	A placental mammalian suborder of anteaters. For spiny anteater see TACHYGLOSSIDAE; and for scaly anteaters, PANGOLINS.

Mn: B03

Tree Category: Bacteria

Term	Ms
Planctomycetes	A phylum of gram-negative bacteria with complex cytoplasmic membrane invaginations and crateriform structures of outer membrane. Members living in anoxic waters and sediments carry out ANAEROBIC AMMONIA OXIDATION.

Mn: B04

Tree Category: Viruses

Term	Ms
Interfering	Naturally occurring or synthetically made defective mutant viral genomes and particles which are incompetent in independent replication and interfere with normal VIRUS REPLICATION. Some synthetic defective interfering genomes may stimulate

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Term	Ms
	INNATE IMMUNE RESPONSE and are candidates for potential vaccine and therapeutic approaches for virus infections.

Mn: C01

Tree Category: Infections

Term	Ms
	Infection which lasts for a long period with continuous display of clinical features. Persistent infection arises due to inability of host cells to clear primary infections completely. When persistent infections are cleared so that infection symptoms are under control they are often referred to as chronic infections. LATENT INFECTIONS are infections in which manifestation of clinical symptoms appear later.

Mn: C05

Tree Category: Musculoskeletal Diseases

Term	Ms
Axial Spondyloarthritis	A spectrum of chronic inflammatory conditions affecting the axial joints (e.g., SPINE), characterized by pain, stiffness of joints (ANKYLOSIS), reduced mobility and inflammation. When joint inflammation and damage are visible on regular X-rays it is called ANKYLOSING SPONDYLITIS; otherwise it is referred to as NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS. HLA-B27 ANTIGEN is a biomarker and IL-23/IL-17 pathway a potential therapeutic target for axial and other related spondyloarthritis.
Non- Radiographic Axial Spondyloarthritis	Chronic inflammatory conditions affecting the axial joints which cannot be detectable on x-rays. It is characterized by pain, stiffness of joints and inflammation. Non-radiographic axial spondyloarthritis can have symptoms onset before the age of 45 and progress to more severe ANKYLOSING SPONDYLITIS over time.

Mn: C06

Tree Category: Digestive System Diseases

Term	Ms
Intestinal Failure	Various intestinal diseases functionally defined as having reduced intestine function requiring PARENTERAL NUTRITION.

Mn: C10

Tree Category: Nervous System Diseases

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Term	Ms
Corticobasal Degeneration	Rare progressive neurological disorder characterized by Parkinsonism, cortical atrophy of multiple areas of the brain including the cerebral cortex and the basal ganglia, cognitive dysfunction and eye movement abnormalities.
Diaschisis	Loss or decreased brain function within intact region of the brain distant from the site of the lesion.
Neuroinflammatory Diseases	Diseases characterized by inflammation of the nervous tissue.
Psychogenic Nonepileptic Seizures	Seizures caused by psychological factors without electrophysiological epileptic changes.
Vascular Depression	Late-life depression associated with clinical or MRI defined cerebrovascular pathology.

Mn: C12

Tree Category: Urogenital Diseases

Term	Ms
Genital Diseases	Pathological processes involving the reproductive tract (GENITALIA).
Urogenital Diseases	Pathological processes of the URINARY TRACT and the reproductive system (GENITALIA).

Mn: C14

Tree Category: Cardiovascular Diseases

Term	Ms
Chronic Limb- Threatening Ischemia	A severe form of peripheral artery disease in which a hypoperfusion of the BLOOD through an organ or tissue is caused by occlusion of peripheral arterial vessels. It is associated with the presence of chronic ischemic rest pain, ulceration or GANGRENE.
Livedoid Vasculopathy	A rare cutaneous thrombotic disease due to occlusion of dermal vessels. It is characterized by purpuric maculae and ulcerations especially during summer which form scars called atrophie blanche. It is more associated with other syndromes (e.g., PROTEIN C DEFICIENCY; HYPERHOMOCYSTEINEMIA).
Livedoid Vasculopathy	A rare cutaneous thrombotic disease due to occlusion of dermal vessels. It is characterized by purpuric maculae and ulcerations especially during summer which form scars called atrophie blanche. It is more associated with other syndromes (e.g., PROTEIN C DEFICIENCY;

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Term	Ms
	HYPERHOMOCYSTEINEMIA). Livedo reticularis with systemic involvement and stroke is SNEDDON SYNDROME.
MINOCA	Myocardial infarction in the absence of obstructive coronary artery disease. CORONARY CIRCULATION disruption is due to various other factors such as ATHEROSCLEROTIC PLAQUE and CORONARY VASOSPASM.
Thromboinflammation	Thrombosis with associated inflammation due to crosstalk between HEMOSTASIS and INNATE IMMUNE RESPONSES modulated by PLATELETS. It is associated with many diseases such as COVID-19; SICKLE CELL ANEMIA; and THROMBOPHLEBITIS.
Vascular Depression	Late-life depression associated with clinical or MRI defined cerebrovascular pathology.

Mn: C15

Tree Category: Hemic and Lymphatic Diseases

Term	Ms
Thromboinflammation	Thrombosis with associated inflammation due to crosstalk between HEMOSTASIS and INNATE IMMUNE RESPONSES modulated by PLATELETS. It is associated with many diseases such as COVID-19; SICKLE CELL ANEMIA; and THROMBOPHLEBITIS.

Mn: C16

Tree Category: Congenital, Hereditary, and Neonatal Diseases and Abnormalities

Term	Ms
Focal Facial Dermal Dysplasias	A heterogenous group of genetic disorders characterized by scar-like atrophic lesions on the temple region of the head including preauricular area. Location of skin defects is likely related to defects in fusion of embryonic facial prominences during development of the face. Focal facial dermal dysplasia (FFDD) is generally divided into four subtypes according to the location of the lesions and inheritance pattern: FFDD1 (Brauer syndrome); FFDD2 (Brauer-Setleis syndrome); FFDD3 (Setleis syndrome); and FFDD4. Mutations in TWIST2 Protein and/or CYP26C1 (see CYP26 FAMILY) are associated with FFDD3, and 4.
Homozygous Familial Hypercholesterolemia	A rare inherited genetic disorder, one form of HYPERLIPOPROTEINEMIA TYPE II, characterized by high level of LOW-DENSITY LIPOPROTEIN (LDL) which if not treated could elevate the chance of heart attack at an early age.

Mn: C17

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Tree Category: Skin and Connective Tissue Diseases

Term	Ms
Erythema Ab Igne	A cutaneous finding caused by prolonged heat exposure (e.g., space heater) and local heat injury (e.g., caused by LASER THERAPY). It is characterized by epidermal atrophy, reticular hyperpigmentation, and telangiectatic dermatosis.
Focal Facial Dermal Dysplasias	A heterogenous group of genetic disorders characterized by scar-like atrophic lesions on the temple region of the head including preauricular area. Location of skin defects is likely related to defects in fusion of embryonic facial prominences during development of the face. Focal facial dermal dysplasia (FFDD) is generally divided into four subtypes according to the location of the lesions and inheritance pattern: FFDD1 (Brauer syndrome); FFDD2 (Brauer-Setleis syndrome); FFDD3 (Setleis syndrome); and FFDD4. Mutations in TWIST2 Protein and/or CYP26C1 (see CYP26 FAMILY) are associated with FFDD3, and 4.
Livedoid Vasculopathy	A rare cutaneous thrombotic disease due to occlusion of dermal vessels. It is characterized by purpuric maculae and ulcerations especially during summer which form scars called atrophie blanche. It is more associated with other syndromes (e.g., PROTEIN C DEFICIENCY; HYPERHOMOCYSTEINEMIA).
Livedoid Vasculopathy	A rare cutaneous thrombotic disease due to occlusion of dermal vessels. It is characterized by purpuric maculae and ulcerations especially during summer which form scars called atrophie blanche. It is more associated with other syndromes (e.g., PROTEIN C DEFICIENCY; HYPERHOMOCYSTEINEMIA). Livedo reticularis with systemic involvement and stroke is SNEDDON SYNDROME.

Mn: C18

Tree Category: Nutritional and Metabolic Diseases

Term	Ms
, –	A rare inherited genetic disorder, one form of HYPERLIPOPROTEINEMIA TYPE II, characterized by high level of LOW-DENSITY LIPOPROTEIN (LDL) which if not treated could elevate the chance of heart attack at an early age.
Iron Deficiencies	Deficient amounts of iron in the body as a result of blood loss, diets deficient in iron, or an iron uptake or storage disorder.

Mn: C20

Tree Category: Immune System Diseases

Term	Ms
Activation	A spectrum of primary, secondary, and idiopathic disorders involving MAST CELLS and characterized by an aberrant release of mast cell mediators which result in multiple and variable inflammatory and allergic symptoms. These disorders are

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Term	Ms	
	associated with various mutations in tyrosine kinase KIT (PROTO-ONCOGENE PROTEINS C-KIT) and other genes, underlying conditions, and responses to allergic or non-allergic triggers of mast cell stimulation and degranulation such as local anesthetics, lactam antibiotics, muscle relaxants, specific foods, environmental toxins, physical conditions such as vibration, cold, pressure, and stress.	
Activation	A clinically and genetically heterogeneous group of mast cell disorders in which there is aberrant release of mast cell mediators with little to no accompanying proliferation of MAST CELLS.	

Mn: C23

Tree Category: Pathological Conditions, Signs and Symptoms

Term	Ms
Ambulatory Care Sensitive Conditions	Various health conditions in OUTPATIENT CARE settings for which adequate management, treatment and interventions delivered in the ambulatory care setting could potentially prevent HOSPITALIZATION.
Body Odor	Strong or unusual odor related to the body. Occasional abnormal body odor may be a temporary effect of a metabolic change.
Chronic Limb- Threatening Ischemia	A severe form of peripheral artery disease in which a hypoperfusion of the BLOOD through an organ or tissue is caused by occlusion of peripheral arterial vessels. It is associated with the presence of chronic ischemic rest pain, ulceration or GANGRENE.
Erythema Ab Igne	A cutaneous finding caused by prolonged heat exposure (e.g., space heater) and local heat injury (e.g., caused by LASER THERAPY). It is characterized by epidermal atrophy, reticular hyperpigmentation, and telangiectatic dermatosis.
MINOCA	Myocardial infarction in the absence of obstructive coronary artery disease. CORONARY CIRCULATION disruption is due to various other factors such as ATHEROSCLEROTIC PLAQUE and CORONARY VASOSPASM.
Neuroinflammatory Diseases	Diseases characterized by inflammation of the nervous tissue.
Persistent Infection	Infection which lasts for a long period with continuous display of clinical features. Persistent infection arises due to inability of host cells to clear primary infections completely. When persistent infections are cleared so that infection symptoms are under control they are often referred to as chronic infections. LATENT INFECTIONS are infections in which manifestation of clinical symptoms appear later.
Psychogenic	Seizures caused by psychological factors without electrophysiological

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Term	Ms
Nonepileptic Seizures	epileptic changes.
Radiation Fibrosis Syndrome	Radiation-induced fibrosis due to increased production of FIBRIN. Its symptoms include CERVICAL DYSTONIA, difficulty with speech and swallowing, swelling in the radiation field and TRISMUS.
Thromboinflammation	Thrombosis with associated inflammation due to crosstalk between HEMOSTASIS and INNATE IMMUNE RESPONSES modulated by PLATELETS. It is associated with many diseases such as COVID-19; SICKLE CELL ANEMIA; and THROMBOPHLEBITIS.
Weight Cycling	Repeated cycles of weight loss followed by weight gain.

Mn: C26

Tree Category: Wounds and Injuries

Term	Ms
Erythema Ab Igne	A cutaneous finding caused by prolonged heat exposure (e.g., space heater) and local heat injury (e.g., caused by LASER THERAPY). It is characterized by epidermal atrophy, reticular hyperpigmentation, and telangiectatic dermatosis.
Radiation Fibrosis Syndrome	Radiation-induced fibrosis due to increased production of FIBRIN. Its symptoms include CERVICAL DYSTONIA, difficulty with speech and swallowing, swelling in the radiation field and TRISMUS.

Mn: D02

Tree Category: Organic Chemicals

Term	Ms
Dissolved Organic Matter	A heterogeneous class of water-soluble compounds containing covalently bound CARBON that are derived from a variety of biological and geological sources during the biogeochemical cycling of carbon (CARBON CYCLE).
Escitalopram	S-enantiomer of CITALOPRAM. Belongs to a class of drugs known as SELECTIVE SEROTONIN REUPTAKE INHIBITORS, used to treat depression and generalized anxiety disorder.
Luciferins	Organic substances found in organisms that generate BIOLUMINESCENCE such as FIREFLY LUCIFERIN that produces light when oxidized to the excited oxyluciferin by the action of the enzyme LUCIFERASE.
Organocopper Compounds	Organic compounds that contain COPPER as an integral part on the molecule.

Mn: D03

Tree Category: Heterocyclic Compounds

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Term	Ms
	S-enantiomer of CITALOPRAM. Belongs to a class of drugs known as SELECTIVE SEROTONIN REUPTAKE INHIBITORS, used to treat depression and generalized anxiety disorder.

Mn: D05

Tree Category: Macromolecular Substances

Term	Ms
Collagen Type I, alpha 1 Chain	A fibrillar collagen found predominantly in BONE and SKIN.
Mitochondrial Precursor Protein Import Complex Proteins	Multiprotein complexes that mediate import and sorting of mitochondrial preproteins into one of the four mitochondrial subcompartments: the outer membrane, the intermembrane space, the inner membrane, and the matrix. Mitochondrial protein import machinery includes translocase of the outer membrane (TOM) complex, translocases of the inner membrane (TIM) complex, beta-barrel pathway complex, the mitochondrial intermembrane space import and assembly (MIA) pathway complex, carrier proteins of the inner membrane and the TIM23 complex and sorting and assembly machinery (SAM) complex.
Shelterin Complex	A TELOMERE cap complex consisting of telomere-specific proteins in association with telomeric DNA such as telomeric dsDNA-sDNA junction. They are involved in the protection of chromosome ends and TELOMERASE regulation and play a role in CELLULAR SENESCENCE and ageing-related pathology. In general it consists of six mostly TELOMERE-BINDING PROTEINS (POT1, RAP1, TIN2, TPP1, TRF1, and TRF2).

Mn: D06

Tree Category: Hormones, Hormone Substitutes, and Hormone Antagonists

Term	Ms
	A soluble protein that stimulates LIPOLYSIS in ADIPOCYTES and causes the extensive fat losses associated with some advanced cancers.

Mn: D08

Tree Category: Enzymes and Coenzymes

Term	Ms
ADP-Ribosylation Factor 6	A member of GTP-binding protein of the large ras superfamily involved in regulation of membrane trafficking by modulating ENDOCYTOSIS and ACTIN CYTOSKELETON remodeling.

Term	Ms
AMP-Activated Protein Kinase Kinases	Protein Serine-threonine kinases that phosphorylate the 63-kDa subunit of AMP-ACTIVATED PROTEIN KINASES. This action results in reactivation of AMP-ACTIVATED PROTEIN KINASE activity and downstream signaling aimed at decreased metabolism.
Cytochrome P-450 CYP2J2	A cytochrome P450 enzyme involved in oxidizing POLYUNSATURATED FATTY ACIDS (PUFA) to PUFA epoxides which function as potent lipid mediators. This enzyme, encoded by CYP2J2 gene, metabolizes ARACHIDONIC ACID to epoxyeicosatrienoic acids (EETs) which produce biological effects including VASODILATION.
DNA Methyltransferase 3A	A methyltransferase that catalyzes the addition of a methyl group to CYTOSINE residues of CpG dinucleotides and is required for genomewide de novo DNA METHYLATION.
Delta-5 Fatty Acid Desaturase	A fatty acid desaturase that is a rate-limiting enzyme for the conversion from dihomo-gamma-linolenic acid and EICOSATETRAENOATE (ETA) in the synthesis of ARACHIDONIC ACID and EICOSAPENTAENOATE (EPA). It is also involved in the biosynthesis of unsaturated fatty acids from the polyunsaturated fatty acids (PUFA), LINOLEIC ACID (LA), and ALPHA LINOLENIC ACID (ALA) precursors and plays an important role in the metabolism of inflammatory lipids including PROSTAGLANDIN E2.
Dihydroorotate Dehydrogenase	An oxidoreductase that catalyzes the conversion of DIHYDROOROTATE to orotate with QUINONE as an electron acceptor in the biosynthesis of PYRIMIDINES.
Doublecortin-Like Kinases	A family of doublecortin domain-containing serine-threonine kinases that were originally identified in neuronal cells.
Klotho Proteins	Membrane bound glucuronidase enzymes that may play a role in activation of FIBROBLAST GROWTH FACTORS, and in the regulation of a variety of cell signaling pathways.
Molybdenum Cofactors	Enzyme co-factors that contain MOLYBDENUM. They play an essential role in a variety of cellular REDOX reactions.
Protein Glutamine gamma Glutamyltransferase 2	Calcium-dependent acyltransferase that catalyzes cross-linking of proteins at a GLUTAMINE in one chain with primary amine such as in LYSINE in another chain. In addition it can also accept monoamine substrates to catalyze post-translational modifications (e.g., protein serotonylation).
Protein Kinase D2	A SERINE-THREONINE PROTEIN KINASE that is activated in response to OXIDATIVE STRESS.
Reelin Protein	It is an EXTRACELLULAR MATRIX serine protease that plays an

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Term	Ms
	important role in the development of the central nervous system. It regulates neuronal migration and microtubule function.
Serine-Threonine Kinase 3	An intracellular-signaling kinase that plays a role in regulating APOPTOSIS.
Tripeptidyl-Peptidase 1	Lysosomal Serine proteases that release N-terminal tripeptide from a polypeptide and cleave peptides between hydrophobic residues. An enzyme that in humans encoded by the TPP1 gene. It is involved in the degradation of bone collagen. Mutations in this gene are associated with the CEROID LIPOFUSCINOSIS, NEURONAL, 2; and SPINOCEREBELLAR ATAXIA, AUTOSOMAL RECESSIVECEROID LIPOFUSCINOSIS, NEURONAL, 2; AND SPINOCEREBELLAR ATAXIA, AUTOSOMAL RECESSIVE 7.
UDP- Glucuronosyltransferase 1A9	A PPAR alpha and PPAR gamma target gene. The enzyme plays an important role in elimination and DETOXIFICATION of drugs, XENOBIOTICS, and metabolizing endogenous compounds, including CATECHOLESTROGENS and FIBRATES.
mu-Crystallins	A subclass of crystallins expressed highly in lens of diurnal Australian MARSUPIALS and in neural tissue, muscle, and kidney in humans. It is not a structural protein accounting for the transparency of the human lens unlike other crystallins but instead plays a role in thyroid hormone bioavailability. It is also a cerebral ketimine reductase which reduces cyclic imines (e.g., DELTA(1)-PIPERIDINE-2-CARBOXYLIC ACID; CYSTATHIONINE KETIMINE and LANTHIONINE KETIMINE) in mammalian brain. Mutations in mu-crystallins are associated with an autosomal dominant NONSYNDROMIC DEAFNESS.
rab7 GTP-Binding Proteins	A small family of rab GTP-binding proteins that play a key role in membrane trafficking in the late endocytic and autophagic pathways.

Mn: D09

Tree Category: Carbohydrates

Term	Ms
	A soluble protein that stimulates LIPOLYSIS in ADIPOCYTES and causes the extensive fat losses associated with some advanced cancers.

Mn: D10

Tree Category: Lipids

Term	Ms
Cytochrome	A cytochrome P450 enzyme involved in oxidizing POLYUNSATURATED FATTY

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Term	Ms
P-450 CYP2J2	ACIDS (PUFA) to PUFA epoxides which function as potent lipid mediators. This enzyme, encoded by CYP2J2 gene, metabolizes ARACHIDONIC ACID to epoxyeicosatrienoic acids (EETs) which produce biological effects including VASODILATION.

Mn: D12

Tree Category: Amino Acids, Peptides, and Proteins

Tree Category: Amino Acids, Peptides, and Proteins	
Term	Ms
2019-nCoV Vaccine mRNA-1273	mRNA vaccine against SARS-CoV-2 developed by Moderna.
ADP- Ribosylation Factor 6	A member of GTP-binding protein of the large ras superfamily involved in regulation of membrane trafficking by modulating ENDOCYTOSIS and ACTIN CYTOSKELETON remodeling.
AMP-Activated Protein Kinase Kinases	Protein Serine-threonine kinases that phosphorylate the 63-kDa subunit of AMP-ACTIVATED PROTEIN KINASES. This action results in reactivation of AMP-ACTIVATED PROTEIN KINASE activity and downstream signaling aimed at decreased metabolism.
Angiomotins	A class of intracellular signaling proteins that were originally identified as inhibitors of ANGIOSTATIN activity. They play a role in cell signaling pathways such as those involving G-PROTEINS and the HIPPO-SIGNALING PATHWAY.
Angiopoietin- Like Protein 1	The first member of the Angiopoietin-like protein family to be discovered. It is considered a key endogenous ANTIANGIOGENIC AGENT which inhibits the proliferation, migration, tube formation, and adhesion of ENDOTHELIAL CELLS.
Angiopoietin- Like Protein 2	A circulating angiopoietin-like protein that is expressed in a variety of tissues in response to HYPOXIA. It acts by inducing angiogenesis and endothelial cell migration.
Angiopoietin- Like Protein 3	An angiopoietin-like protein that plays a role in regulation of LIPOPROTEIN metabolism.
Angiopoietin- Like Protein 6	An angiopoietin-like protein that is expressed in LIVER and involved in regulation of BLOOD GLUCOSE; LIPID METABOLISM; and ENERGY METABOLISM.
Angiopoietin- Like Protein 7	An angiopoietin-like protein that is expressed in NERVE TISSUE, KERATOCONUS corneas, TRABECULAR MESHWORK.
Angiopoietin- Like Protein 8	A nutritionally-regulated factor found in the LIVER. It plays a role in lipid metabolism and VLDL secretion in the liver. It was originally called betatrophin due to its suspected role as a peptide hormone that stimulates beta cell

Term	Ms
	proliferation.
Antimicrobial Peptides	Small peptides that play an important role in early innate and induced defenses against invading microbes. Most have positive overall charges and are referred to as cationic antimicrobial peptides.
Antiviral Restriction Factors	A broad category of endogenous host cellular factors upregulated in response to pathogens (i.e., INTERFERON-stimulated genes) and recruited to interfere with VIRAL REPLICATION and/or trigger host antiviral CELLULAR IMMUNE RESPONSE.
BNT162 Vaccine	mRNA vaccine against SARS-CoV-2 developed by Pfizer and BioNTech.
CLC-2 Chloride Channels	One of the nine mammalian members of the CHLORIDE CHANNEL family involved in chloride ion transport. It has several functions including the regulation of cell volume, membrane potential stabilization, signal transduction and transepithelial transport.
Chromobox Protein Homolog 5	A protein located within beta-heterochromatin that is involved in suppression of POSITION EFFECT VARIEGATION.
Constitutive Androstane Receptor	A member of the nuclear receptor superfamily (subfamily 1, group I, member 3 [NR1i3]) involved, along with PREGNANE X RECEPTOR, in regulation of cellular responses to the exogenous and endogenous chemicals such as detoxification of XENOBIOTICS.
Cytochrome P-450 CYP2J2	A cytochrome P450 enzyme involved in oxidizing POLYUNSATURATED FATTY ACIDS (PUFA) to PUFA epoxides which function as potent lipid mediators. This enzyme, encoded by CYP2J2 gene, metabolizes ARACHIDONIC ACID to epoxyeicosatrienoic acids (EETs) which produce biological effects including VASODILATION.
Designed Ankyrin Repeat Proteins	Genetically engineered antibody MIMETIC PROTEINS, derived from ANKYRIN PROTEINS. They offer advantages over antibodies because of their highly specific target PROTEIN BINDING with high affinity and specificity.
Doublecortin Domain Proteins	A family of microtubule-associated proteins that share in common a tandem repeat of evolutionarily conserved protein domains initially found in DOUBLECORTIN PROTEIN.
Doublecortin Protein	A microtubule-associated protein that is primarily found in neuronal precursor cells and immature NEURONS in embryonic and adult cortical structures.
Doublecortin- Like Kinases	A family of doublecortin domain-containing serine-threonine kinases that were originally identified in neuronal cells.
Endoplasmic	An ENDOPLASMIC RETICULUM specific chaperone of the HSP70 family. They

Term	Ms
Reticulum Chaperone BiP	are involved in folding and oligomerization of secreted and membrane proteins and ENDOPLASMIC RETICULUM STRESS related UNFOLDED PROTEIN RESPONSE.
Fibroblast Growth Factor-23	A specific fibrobroblast growth factor that is primarily synthesized by OSTEOCYTES and OSTEOBLASTS. It is involved in regulating phosphate homeostasis and renal phosphate excretion.
Filaggrin Proteins	S100 proteins that aggregate KERATINS. Filaggrin precursor proteins are localized in keratohyalin granules and processed into individual functional filaggrin molecules during terminal epidermis differentiation. Mutations in fillagrins are associated with ICHTHYOSIS VULGARIS.
Homeobox Protein Nkx-2.2	A homeobox-containing transcription factor that functions in INSULIN-SECRETING CELLS. Mutations in the NKX2-2 gene are associated with MATURITY-ONSET DIABETES OF THE YOUNG and OLIGODENDROGLIOMA.
Klotho Proteins	Membrane bound glucuronidase enzymes that may play a role in activation of FIBROBLAST GROWTH FACTORS, and in the regulation of a variety of cell signaling pathways.
Kruppel-Like Factor 4	A member of zinc finger-containing transcription factors that belongs to the KRUPPEL-LIKE FACTOR family, involved in the regulation of diverse cellular processes such as cell growth, proliferation, differentiation, and APOPTOSIS.
Leucine-Rich Repeat Proteins	A protein with a three-dimensional structure that forms an alpha/beta horseshoe fold. It is found in a large number of proteins with diverse functions, including INNATE IMMUNITY RESPONSE and NERVOUS SYSTEM.
Mannose Receptor	A member of a family of endocytic receptors. Highly expressed on human macrophages, involved in regulating endocytosis, phagocytosis, and immune responses.
Mesothelin	An ANTIGEN present on the surface of certain types of normal cells and overexpressed in several human tumors, including OVARIAN CANCER.
Metallothionein 3	A metallothionein that exhibits neuroinhibitory activity and is involved in the repair of neuronal damage.
Mitochondrial Precursor Protein Import Complex Proteins	Multiprotein complexes that mediate import and sorting of mitochondrial preproteins into one of the four mitochondrial subcompartments: the outer membrane, the intermembrane space, the inner membrane, and the matrix. Mitochondrial protein import machinery includes translocase of the outer membrane (TOM) complex, translocases of the inner membrane (TIM) complex, beta-barrel pathway complex, the mitochondrial intermembrane space import and assembly (MIA) pathway complex, carrier proteins of the inner membrane and the TIM23 complex and sorting and assembly machinery (SAM) complex.

Term	Ms
Multidrug Resistance- Associated Protein 2	An ATP-BINDING CASSETTE TRANSPORTERS subfamily protein that is localized on the canalicular membrane of HEPATOCYTES, as well as on the apical membrane of EPITHELIAL CELLS of the DUODENUM, JEJUNUM and PROXIMAL RENAL TUBULE.
Neuro- Oncological Ventral Antigen	They are RNA-BINDING PROTEINS involved in mRNA processing. These are essential in gene regulation, including splicing, translation, transport, stability, and degradation of RNA.
Nitrate Transporters	Plant proteins that participate in the active uptake of NITRATE from soil and its transport throughout the plant.
Nucleic Acid- Based Vaccines	Vaccines formulated with nucleic acids specific for a target antigen. They are designed to induce antibody production against the target by host.
Nucleophosmin	Predominantly localized in the CELL NUCLEOLUS, involved in diverse cellular processes such as ribosome biogenesis, cytoplasmic-nuclear trafficking, centrosome duplication, and regulation of p53.
Prohibitins	Ubiquitously expressed conserved proteins associated with multiple functions including APOPTOSIS; CELL PROLIFERATION, regulations of various immune and mitochondrial functions, and cellular stress responses. Prohibitin 1 and prohibitin 2 form a ring-shaped complex in the INNER MITOCHONDRIAL MEMBRANE.
Protein Kinase D2	A SERINE-THREONINE PROTEIN KINASE that is activated in response to OXIDATIVE STRESS.
Proto- Oncogene Mas	A protein that is encoded by the MAS1 gene. It is a receptor for ANGIOTENSIN 1-7 and acts as an antagonist of ANGIOTENSIN-2 TYPE 1 RECEPTOR.
Protocadherins	Members of cadherin superfamily involved in cell adhesion and cell-cell interactions in neural development. They are subdivided into clustered (cPcdhs) and non-clustered protocadherin (ncPcdhs) depending whether their genes are tandemly arranged in vertebrates.
Reelin Protein	It is an EXTRACELLULAR MATRIX serine protease that plays an important role in the development of the central nervous system. It regulates neuronal migration and microtubule function.
Ribosomal Protein L3	It is a ribosomal protein that plays a crucial role in protein synthesis.
Ribosomal Protein S9	It is a protein that encodes a RIBOSOMAL PROTEIN which is a component of the 40S subunit. It belongs to the S4P family of ribosomal proteins.
Serine-	An intracellular-signaling kinase that plays a role in regulating APOPTOSIS.

Term	Ms
Threonine Kinase 3	
Shelterin Complex	A TELOMERE cap complex consisting of telomere-specific proteins in association with telomeric DNA such as telomeric dsDNA-sDNA junction. They are involved in the protection of chromosome ends and TELOMERASE regulation and play a role in CELLULAR SENESCENCE and ageing-related pathology. In general it consists of six mostly TELOMERE-BINDING PROTEINS (POT1, RAP1, TIN2, TPP1, TRF1, and TRF2).
TEA Domain Transcription Factors	A family of transcription factors that share a conserved TEA DNA binding domain.
Three Finger Toxins	A super-family of non-enzymatic proteins found in ELAPIDAE VENOMES. They possess a unique tertiary structure resembling a hand with three fingers and have diverse biological activities due to sequence and structural variations; some are ALPHA-NEUROTOXINS that bind NICOTINIC ACETYLCHOLINE RECEPTORS.
Transcriptional Coactivator with PDZ- Binding Motif Proteins	A family of signal transducing adaptor proteins that are similar in structure and function to YAP-SIGNALING PROTEINS. They are components of the HIPPO-SIGNALING PATHWAY, and may act as transcriptional co-activators for TEAD TRANSCRIPTION FACTORS.
Tumor Protein, Translationally- Controlled 1	A highly expressed protein in tumor cells, encoded by Tpt1 gene. It's involved in various cellular activities including protein synthesis, calcium-binding, MICROTUBULE stabilization, growth, and cell survival. Also, Tpt1 identified as a direct target gene of P53 tumor suppression.
Viperin Protein	A highly conserved IFN-inducible protein with a wide range of antiviral activities by binding to the VIRAL N PROTEIN.
Xenotropic and Polytropic Retrovirus Receptor	A cell surface receptor involved in G-protein recruitment and G-protein-coupled signal transduction. The receptor also plays a role in phosphate homeostasis.
YAP-Signaling Proteins	Signal transducing adaptor proteins that were initially identified by their association with YES PROTO-ONCOGENE PROTEIN. They are downstream components of the HIPPO-SIGNALING PATHWAY, and act as transcriptional coactivators for TEAD TRANSCRIPTION FACTORS.
Zn-Alpha-2- Glycoprotein	A soluble protein that stimulates LIPOLYSIS in ADIPOCYTES and causes the extensive fat losses associated with some advanced cancers.
mRNA	Vaccines formulated with recombinant mRNAs which are taken up by the host

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Term	Ms
Vaccines	cells that translate the mRNA and present the translated proteins to the immune system as antigens in a manner similar to that which would occur during natural infection. This induces humoral and cellular immune responses against the encoded antigen.
mu-Crystallins	A subclass of crystallins expressed highly in lens of diurnal Australian MARSUPIALS and in neural tissue, muscle, and kidney in humans. It is not a structural protein accounting for the transparency of the human lens unlike other crystallins but instead plays a role in thyroid hormone bioavailability. It is also a cerebral ketimine reductase which reduces cyclic imines (e.g., DELTA(1)-PIPERIDINE-2-CARBOXYLIC ACID; CYSTATHIONINE KETIMINE and LANTHIONINE KETIMINE) in mammalian brain. Mutations in mu-crystallins are associated with an autosomal dominant NONSYNDROMIC DEAFNESS.
rab7 GTP- Binding Proteins	A small family of rab GTP-binding proteins that play a key role in membrane trafficking in the late endocytic and autophagic pathways.

Mn: D20

Tree Category: Complex Mixtures

T	N
Term	Ms
2019-nCoV Vaccine mRNA-1273	mRNA vaccine against SARS-CoV-2 developed by Moderna.
Ad26COVS1	A viral vector vaccine designed against SARS-CoV-2 developed by Johnson & Johnson. Its vector encodes the SARS-CoV-2 Spike protein.
Aerosolized Particles and Droplets	A suspension of tiny particles or liquid droplets (< 5-10 microns) in the air. They sometimes cause adverse health effects when inhaled or absorbed.
BNT162 Vaccine	mRNA vaccine against SARS-CoV-2 developed by Pfizer and BioNTech.
ChAdOx1 nCoV-19	A viral vector vaccine against SARS-CoV-2 developed by AstraZeneca. Its vector encodes the SARS-CoV-2 Spike protein.
Dissolved Organic Matter	A heterogeneous class of water-soluble compounds containing covalently bound CARBON that are derived from a variety of biological and geological sources during the biogeochemical cycling of carbon (CARBON CYCLE).
Nucleic Acid-Based Vaccines	Vaccines formulated with nucleic acids specific for a target antigen. They are designed to induce antibody production against the target by host.

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Term	Ms
Three Finger Toxins	A super-family of non-enzymatic proteins found in ELAPIDAE VENOMES. They possess a unique tertiary structure resembling a hand with three fingers and have diverse biological activities due to sequence and structural variations; some are ALPHA-NEUROTOXINS that bind NICOTINIC ACETYLCHOLINE RECEPTORS.
mRNA Vaccines	Vaccines formulated with recombinant mRNAs which are taken up by the host cells that translate the mRNA and present the translated proteins to the immune system as antigens in a manner similar to that which would occur during natural infection. This induces humoral and cellular immune responses against the encoded antigen.

Mn: D23

Tree Category: Biological Factors

Tree Category. B		
Term	Ms	
2019-nCoV Vaccine mRNA-1273	mRNA vaccine against SARS-CoV-2 developed by Moderna.	
Angiopoietin- Like Protein 1	The first member of the Angiopoietin-like protein family to be discovered. It is considered a key endogenous ANTIANGIOGENIC AGENT which inhibits the proliferation, migration, tube formation, and adhesion of ENDOTHELIAL CELLS.	
Angiopoietin- Like Protein 2	A circulating angiopoietin-like protein that is expressed in a variety of tissues in response to HYPOXIA. It acts by inducing angiogenesis and endothelial cell migration.	
Angiopoietin- Like Protein 3	An angiopoietin-like protein that plays a role in regulation of LIPOPROTEIN metabolism.	
Angiopoietin- Like Protein 6	An angiopoietin-like protein that is expressed in LIVER and involved in regulation of BLOOD GLUCOSE; LIPID METABOLISM; and ENERGY METABOLISM.	
Angiopoietin- Like Protein 7	An angiopoietin-like protein that is expressed in NERVE TISSUE, KERATOCONUS corneas, TRABECULAR MESHWORK.	
Angiopoietin- Like Protein 8	A nutritionally-regulated factor found in the LIVER. It plays a role in lipid metabolism and VLDL secretion in the liver. It was originally called betatrophin due to its suspected role as a peptide hormone that stimulates beta cell proliferation.	
BNT162 Vaccine	mRNA vaccine against SARS-CoV-2 developed by Pfizer and BioNTech.	
Cyanobacteria Toxins	Toxic secondary metabolites produced CYANOBACTERIA.	
Mesothelin	An ANTIGEN present on the surface of certain types of normal cells and overexpressed in several human tumors, including OVARIAN CANCER.	

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Term	Ms
Nucleic Acid- Based Vaccines	Vaccines formulated with nucleic acids specific for a target antigen. They are designed to induce antibody production against the target by host.
Protocadherins	Members of cadherin superfamily involved in cell adhesion and cell-cell interactions in neural development. They are subdivided into clustered (cPcdhs) and non-clustered protocadherin (ncPcdhs) depending whether their genes are tandemly arranged in vertebrates.
Reelin Protein	It is an EXTRACELLULAR MATRIX serine protease that plays an important role in the development of the central nervous system. It regulates neuronal migration and microtubule function.
Three Finger Toxins	A super-family of non-enzymatic proteins found in ELAPIDAE VENOMES. They possess a unique tertiary structure resembling a hand with three fingers and have diverse biological activities due to sequence and structural variations; some are ALPHA-NEUROTOXINS that bind NICOTINIC ACETYLCHOLINE RECEPTORS.
Uremic Toxins	Biological solutes retained and accumulated due to kidney impairment that contribute to uremia/chronic kidney disease.
Zn-Alpha-2- Glycoprotein	A soluble protein that stimulates LIPOLYSIS in ADIPOCYTES and causes the extensive fat losses associated with some advanced cancers.
mRNA Vaccines	Vaccines formulated with recombinant mRNAs which are taken up by the host cells that translate the mRNA and present the translated proteins to the immune system as antigens in a manner similar to that which would occur during natural infection. This induces humoral and cellular immune responses against the encoded antigen.

Mn: D25

Tree Category: Biomedical and Dental Materials

Term	Ms
Decellularized Extracellular Matrix	A biomaterial with a network of macromolecules with varying composition and organization of tissue-specific proteins and polysaccharides. It is prepared from organs and tissues by decellularization (e.g., with a detergent) to mimic native microenvironment for tissue-specific functions.

Mn: D26

Tree Category: Pharmaceutical Preparations

Term	Ms
Adjuvants, Vaccine	Substances consist of different components, e.g. aluminum salts, EMULSIONS such as MF59 and AS03, Toll-like receptor (TLR) agonist or combinations of

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Term	Ms
	IMMUNOPOTENTIATORS (QS-21 and MPL in AS01), that helps increase the magnitude of an ADAPTIVE IMMUNE RESPONSE to a VACCINE.
Nanoparticle Drug Delivery System	Engineered NANOPARTICLES with unique physiochemical properties which improve drug BIOAVAILABILITY and site specific drug delivery.

Mn: D27

Tree Category: Chemical Actions and Uses

Term	Ms
Adjuvants, Vaccine	Substances consist of different components, e.g. aluminum salts, EMULSIONS such as MF59 and AS03, Toll-like receptor (TLR) agonist or combinations of IMMUNOPOTENTIATORS (QS-21 and MPL in AS01), that helps increase the magnitude of an ADAPTIVE IMMUNE RESPONSE to a VACCINE.
Anticoagulant Reversal Agents	Agents that have the potential to reverse specific anticoagulation therapies.
Antifibrotic Agents	These agents are used to reduce FIBROSIS affecting organs and formation of scar TISSUES such as in SCLERODERMA patients.
Antiglaucoma Agents	Agents used to preserve visual function by decreasing INTRAOCULAR PRESSURE (IOP) by targeting the AQUEOUS HUMOR.
Decellularized Extracellular Matrix	A biomaterial with a network of macromolecules with varying composition and organization of tissue-specific proteins and polysaccharides. It is prepared from organs and tissues by decellularization (e.g., with a detergent) to mimic native microenvironment for tissue-specific functions.
Deep Eutectic Solvents	A fluid that is generally composed of two or three safe (cheap, non-toxic, renewable, and biodegradable) components that are capable of self-association, often through hydrogen bond interactions, to form a liquid close to the eutectic composition, i.e., the molar ratio of the components which has the lowest melting point (eutectic point).
Gamma Secretase Inhibitors and Modulators	Agents that suppress GAMMA-SECRETASE by inhibiting or modulating its activities. Targeted enzymatic activities include its involvement in accumulation of toxic AMYLOID BETA-PEPTIDES (e.g., A β 42) in ALZHEIMER DISEASE and activation of NOTCH RECEPTOR mediated SIGNAL PATHWAYS in certain cancer types.
Genitourinary Agents	Drugs used in treatment of medical conditions found in REPRODUCTIVE ORGANS and the URINARY TRACT such as URINARY INCONTINENCE; ERECTILE DYSFUNCTION; and PRETERM LABOR prevention.

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Term	Ms
HCV NS3-4A Protease Inhibitors	A direct acting antiviral compound that inhibits hcv ns3-4a protease. It is used to treat chronic HEPATITIS C VIRUS.
Immunomodulating Agents	Agents that alter the response of the immune system by activating (IMMUNOSTIMULANT) or suppressing (IMMUNOSUPPRESSIVE) the immune system and may help the body fight cancer, infection, or other diseases.
Interleukin Inhibitors	IMMUNOSUPPRESSIVE AGENTS which inhibit the action of INTERLEUKINS.
MTOR Inhibitors	Agents that inhibit the activity of TOR SERINE-THREONINE KINASES which is the target of an immunosuppressive drug RAPAMYCIN.
MTOR Inhibitors	Agents that inhibit the activity of the mechanistic target of RAPAMYCIN, which is a protein kinase.
PCSK9 Inhibitors	Agents that inhibit Proprotein Convertase Subtilisin/Kexin Type 9 (see PROPROTEIN CONVERTASE 9 (PCSK9)), an enzyme that plays an important role in the degradation of the LDL receptors. It favors LDL catabolism and reduces plasma LDL-cholesterol (LDL_C) level.
Senotherapeutics	Chemical agents which induce the removal (by apoptotic or non-apoptotic cell death) or immune-mediated clearance of senescent cells, or the neutralization of the detrimental effects of the SENESCENCE-ASSOCIATED SECRETORY PHENOTYPE.

Mn: E01

Tree Category: Diagnosis

Term	Ms
Dacryocystography	An image guided examination of the NASOLACRIMAL APPARATUS including NASOLACRIMAL DUCT.
Digit Ratios	Ratio between lengths of fingers and/or toes that is sometimes characteristic of an exposure to ENDOCRINE DISRUPTORS during FETAL DEVELOPMENT.
Fractional Exhaled Nitric Oxide Testing	Test to measure the levels of NITRIC OXIDE (an ENDOTHELIUM-DEPENDENT RELAXING FACTOR) in the exhaled air. FeNO test is used to determine levels of inflammation in the pulmonary ENDOTHELIUM often associated with endothelium associated diseases, e.g., ASTHMA.
Overdiagnosis	The labeling of a person with a disease or abnormal condition that would not have caused the person harm if left undiscovered, creating new diagnoses by medicalizing ordinary life experiences, or expanding existing diagnoses by lowering thresholds or widening criteria without evidence of improved outcomes. Individuals derive no clinical benefit from overdiagnosis

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Term	Ms
	although they may experience physical, psychological or financial harm.
Viral Pseudotyping	Technique in which endogenous ENVELOPE PROTEINS have been replaced by use of a chimeric vector. For instance a viral vector with SIMIAN IMMUNODEFICIENCY VIRUS can be coated with the VIRAL ENVELOPE PROTEINS from Vesicular stomatitus virus. Use of these types of vectors are useful in developing NEUTRALIZATION TESTS by enabling infection of almost universal set of host cells.

Mn: E02

Tree Category: Therapeutics

Term	Ms
Anticoagulation Reversal	Treatment strategies used to manage bleeding events that occur during the use of ANTICOAGULANTS.
Aquatic Therapy	Physical therapy administered while the body is immersed in an aquatic environment.
Blood Flow Restriction Therapy	A technique which combines low intensity exercise with blood flow occlusion by use of a cuff. The cuff is placed close to the muscle being exercised thereby recreating a HYPOXIA to mimic the effects of high intensity exercise.
Ex utero Intrapartum Treatment Procedures	Prenatal interventions to manage fetal anomalies or FETAL DISEASES ex utero while maintaining the uteroplacental circulation during obstetric delivery. EXIT procedures are divided into EXIT-to-airway; EXIT-to-ECMO; and EXIT-to-resection.
Genomic Medicine	A medical discipline using genomic information about an individual as part of their clinical care (e.g. for diagnostic or therapeutic decision-making) and the health outcomes and policy implications of that clinical use. (From www.genome.gov/health/Genomics-and-Medicine accessed 12/28/2020)
Hospital to Home Transition	Patient-centered hospital discharge to home planning and transition.
Medicine, Persian	Traditional concepts of medicine and associated methods reflected in medicine in PERSIA.
Mirror Movement Therapy	Rehabilitation therapy in which a mirror is placed between the arms or legs so that the image of a moving non-affected limb gives the illusion of normal movement in the affected limb. This stimulates different brain regions for movement, sensation, and pain. (www.cochrane.org/CD008449 access 12/28/2020)
Myofascial	A massage therapy which focuses on releasing MUSCLE TIGHTNESS often used

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Term	Ms
Release Therapy	to relieve muscular pain from myofascial tissues (e.g., MYOFASCIAL PAIN SYNDROME).
Nanoparticle Drug Delivery System	Engineered NANOPARTICLES with unique physiochemical properties which improve drug BIOAVAILABILITY and site specific drug delivery.

Mn: E04

Tree Category: Surgical Procedures, Operative

Term	Ms
Ex utero Intrapartum Treatment Procedures	Prenatal interventions to manage fetal anomalies or FETAL DISEASES ex utero while maintaining the uteroplacental circulation during obstetric delivery. EXIT procedures are divided into EXIT-to-airway; EXIT-to-ECMO; and EXIT-to-resection.
Umbilical Cord Clamping	Method of placing clamps on the UMBILICAL CORD before cutting after birth.

Mn: E05

Tree Category: Investigative Techniques

Term	Ms
Ambulatory Care Sensitive Conditions	Various health conditions in OUTPATIENT CARE settings for which adequate management, treatment and interventions delivered in the ambulatory care setting could potentially prevent HOSPITALIZATION.
Canonical Correlation Analysis	Mathematical procedure that transforms vectors of variables into canonical variate pairs and finds their correlation to describe strength of association.
Cell Culture Techniques, Three Dimensional	Methods for growing cells in a way that they form three-dimensional shapes, such as on a three-dimensionally shaped substrate or as free-falling aggregates in stirred liquids.
Cellular Automata	Space-oriented dynamic modeling ALGORITHMS acting in an array of cells, whose temporal states evolve based on the rules (algorithms) of the automata. They are used to model complex dynamic systems for study and analysis in a variety of scientific fields.
Census Tract	Small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the U. S. Census Bureau's Participant Statistical Areas

Term	Ms
	Program.(https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13)
Chemometrics	The use of statistical and mathematical methods to analyze chemical observations and phenomena, such as epidemiological analysis of spectroscopically identified bacteria or QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIP.
Climate Models	Computer representations that simulate or predict the behavior or activity of WEATHER systems, processes, or phenomena.
Digit Ratios	Ratio between lengths of fingers and/or toes that is sometimes characteristic of an exposure to ENDOCRINE DISRUPTORS during FETAL DEVELOPMENT.
Disability- Adjusted Life Years	It is the sum of years of life lost due to PREMATURE MORTALITY and the number of years lived with disability, due to disease or health condition in a population. This is a measurement of BURDEN OF DISEASE.
Epidemiological Models	Mathematical models of the transmission of infectious diseases. They predict spread of a disease by incorporating disease-related (e.g., infectious agent, mode of transmission, latent period, infectious period) and abiotic factors (e.g., social, cultural, demographic, and geographic factors).
Healthy Life Expectancy	The expected number of remaining years of life spent in good health from a particular age, assuming current rates of mortality and morbidity.
Network Pharmacology	A systems-based pharmacologic discovery process used to predict the multiple targets of multiple drugs in a complex mixture such as CHINESE HERBAL DRUGS. It involves analytical detection of chemicals plus prediction of pharmacologic activity and protein targets for each compound in the mixture and aggregating the net physiological effect.
Vaccine Development	The entire process of introducing a new vaccine for use in VACCINATION including pre-clinical development, testing in CONTROLLED CLINICAL TRIAL, manufacturing, approval/licensing and distribution.
Vaccine Efficacy	A measurement of disease risk reduction among vaccinated compared to unvaccinated persons under ideal conditions such as in a clinical trial. Such disease reduction measured under typical field conditions is vaccine effectiveness. In contrast vaccine potency is measured in an assay to ensure proper dosing and storage of vaccines whereas vaccine immunogenicity measures its ability to induce an immune response in a vaccinated individual in observational studies.
Video-Assisted Techniques and Procedures	Techniques or procedures performed with visualization via video transmission.

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Term	Ms
Viral Pseudotyping	Technique in which endogenous ENVELOPE PROTEINS have been replaced by use of a chimeric vector. For instance a viral vector with SIMIAN IMMUNODEFICIENCY VIRUS can be coated with the VIRAL ENVELOPE PROTEINS from Vesicular stomatitus virus. Use of these types of vectors are useful in developing NEUTRALIZATION TESTS by enabling infection of almost universal set of host cells.

Mn: F01

Tree Category: Behavior and Behavior Mechanisms

Term	Ms
Adolescent Fathers	Fathers initially aged less than 19 years at the time of child's birth.
Bias, Implicit	The attitudes or stereotypes that affect understanding, actions, and decisions in an unconscious manner. These biases which include favorable and unfavorable assessments, are activated involuntarily without individual's intentional control. (from https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/joint-commission-online/quick_safety_issue_23_apr_2016pdf.pdf? db=web&hash=A5852411BCA02D1A918284EBAA775988)
Disinformation	False information deliberately and often covertly spread in order to influence public opinion or obscure the truth. (https://www.merriam-webster.com/dictionary/disinformation)
Information Avoidance	Choosing to not obtain knowledge even if having the information could be to one's benefit.
Intersectional Framework	Interconnections of social categorizations such as race, class, and gender, creating overlapping and interdependent systems of discrimination or disadvantage.
Mass Gatherings	Organized or spontaneous events where the number of people attending is sufficient to strain the planning and response resources of the community hosting the event. (WHO, 2008). These events include the gathering of people as the result of natural disasters or conflict.
Microaggression	Brief verbal, behavioral, or situational indignities that communicate hostile, derogatory, or negative slights or insults. It may may be intentional or implicit. Three subtypes have been identified: microassaults, which are purposefully discriminatory actions; microinsults, which are subtle snubs that devalue a person's identity; and microinvalidations, which are unintentional exclusions or negations of an individual's thoughts. (dictionary.apa.org/microaggression 12/30/2020)

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Term	Ms
Ostracism	An extreme form of rejection in which one is excluded and ignored in the presence of others.
Perceived Discrimination	Perception of being treated badly or unfairly on the basis of race, ethnicity, gender, age, religion, physical appearance, sexual orientation, or other characteristics. This includes perceived discrimination in health care settings.
Prolonged Grief Disorder	Severe and disabling grief reactions that do not remit in the 12 months after the death of a significant other. The core of the diagnosis includes persistent yearning or missing the deceased, and preoccupation with the circumstance of the death. (Carmassi, Clinical Handbook of Bereavement and Grief Reactions, 2018)
Self- Compassion	Being kind and understanding toward oneself in times of pain or failure, perceiving one's own suffering as part of a larger human experience, and holding painful feelings and thoughts in mindful awareness. (from Rev General Psychology, 15(4), 289–303. https://doi.org/10.1037/a0025754 accessed 8/11/2020)
Social Cohesion	Strength of relationships and the sense of belongingness and solidarity among members of a community (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/social-cohesion).
Systemic Racism	Processes of racism that are embedded in laws (local, state, and federal), policies, and practices of society and its institutions that provide advantages to racial groups deemed as superior, while differentially oppressing, disadvantaging, or otherwise neglecting racial groups viewed as inferior. Differential access to the goods, services, and opportunities of society by race. Institutionalized racism is normative, sometimes legalized, and often manifests as inherited disadvantage. It is structural, having been codified in our institutions of custom, practice, and law, so there need not be an identifiable perpetrator. (ttps://www.cdc.gov/chronicdisease/programs-impact/sdoh.htm)
Technology Addiction	The inability to overcome a desire to have contact with and use technology and electronic devices.
Vaccination Hesitancy	Delay in acceptance of vaccination despite availability.

Mn: F02

Tree Category: Psychological Phenomena

Term	Ms
Core Stability	A POSTURE in which an ideal body mass distribution is achieved for the

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Term	Ms
	ABDOMINAL CORE. Abdominal core stability and balance provides the body an ability to maintain equilibrium and control of the SPINE and PELVIC REGION during movement.
Life Course Perspective	An approach to analyze one's life within the framework of various circumstances experienced in a given society throughout entirety of life.
Listening Effort	The deliberate allocation of mental resources to overcome obstacles in goal pursuit when carrying out a task, with listening effort applied more when tasks involved listening. (From Pichora-Fuller et al.2016)
Perceived Discrimination	Perception of being treated badly or unfairly on the basis of race, ethnicity, gender, age, religion, physical appearance, sexual orientation, or other characteristics. This includes perceived discrimination in health care settings.
Self- Compassion	Being kind and understanding toward oneself in times of pain or failure, perceiving one's own suffering as part of a larger human experience, and holding painful feelings and thoughts in mindful awareness. (from Rev General Psychology, 15(4), 289–303. https://doi.org/10.1037/a0025754 accessed 8/11/2020)
Sleep Quality	Satisfaction with the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon awakening.

Mn: F03

Tree Category: Mental Disorders

Term	Ms
Orthorexia Nervosa	An eating disorder that is characterized by the pathological obsession with HEALTHY EATING.
Schizophrenia, Treatment- Resistant	A subset of schizophrenia with an inadequate response in target symptoms following treatment with two or more ANTIPSYCHOTICS.
Sluggish Cognitive Tempo	Defined by a constellation of caregiver-reported symptoms that includes daydreaming, difficulty initiating and sustaining effort, lethargy, and physical underactivity. These symptoms have been observed in both typically developing children and in some children with Attention-Deficit/Hyperactivity Disorder (ADHD), especially those with the predominantly inattentive presentation. (J Abnormal Child Psychology; 46: Jan 2018.127).
Vascular Depression	Late-life depression associated with clinical or MRI defined cerebrovascular pathology.

Mn: F04

Tree Category: Behavioral Disciplines and Activities

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Term	Ms
Cognitive Psychology	Branch of psychology that explores the operation of mental processes related to perceiving, attending, thinking, language, and memory, mainly through inferences from behavior. (APA Dictionary of Psychology. https://dictionary.apa.org/cognitive-psychology, accessed 3/22/2021).
Cognitive Restructuring	A technique drawn from COGNITIVE BEHAVIOR THERAPY that helps an individual to identify, challenge and alter stress-inducing thought patterns and beliefs.
Intersectional Framework	Interconnections of social categorizations such as race, class, and gender, creating overlapping and interdependent systems of discrimination or disadvantage.
Mentalization- Based Therapy	Mentalization-based therapy (MBT) is a type of long-term psychotherapy that is based on the use of MENTALIZATION.
Psychological First Aid	Early psychosocial intervention approach used during or after traumatic life events as disasters, accidents, terrorist attacks causing negative effects on individual and/or society. It focuses on determining basic physical and mental needs of individuals in major events.

Mn: G01

Tree Category: Physical Phenomena

Term	Ms
Radiation Fibrosis Syndrome	Radiation-induced fibrosis due to increased production of FIBRIN. Its symptoms include CERVICAL DYSTONIA, difficulty with speech and swallowing, swelling in the radiation field and TRISMUS.

Mn: G02

Tree Category: Chemical Phenomena

Term	Ms
	A process facilitated by specialized bacteria (PLANCTOMYCETES) involving the oxidation of ammonia to gaseous nitrogen by using nitrite as the electron acceptor.
Hippo Signaling Pathway	A signaling pathway that plays a key role in regulating tissue and organ growth. The name derives from the protein kinase Hippo (Hpo) found in DROSOPHILA; where mutations of the Hpo gene result in tissue overgrowth and the hippopotamus phenotype.

Mn: G03

Tree Category: Metabolism

Report for Year (DX)2022

Term	Ms
Oxygen Saturation	Extent to which HEMOGLOBIN is saturated with OXYGEN typically as measured in arterial blood. It can be measured by various methods (e.g., PULSE OXYMETER, blood gas analysis). A low blood oxygen saturation level indicates a condition called HYPOXEMIA.
Secretome	The set of all the soluble factors and extracellular vesicles secreted into the extracellular space by cells, or an organ or organism. In some studies the secretome only refers to the proteins secreted into the extracellular space.

Mn: G04

Tree Category: Cell Physiological Phenomena

Term	Ms
Cell Death Reversal	Recovery of cells from one of the activated pathways of regulated cell death.
Hippo Signaling Pathway	A signaling pathway that plays a key role in regulating tissue and organ growth. The name derives from the protein kinase Hippo (Hpo) found in DROSOPHILA; where mutations of the Hpo gene result in tissue overgrowth and the hippopotamus phenotype.
Opsonization	The process of recognizing and targeting particles by binding with OPSONINS (e.g., IgM, C1 and IgG) for phagocytosis or for antibody-dependent cell cytotoxicity.
Senescence- Associated Secretory Phenotype	A paracrine pro-inflammatory phenotype developed in senescing cells. The senescence-associated secretory phenotype (SASP) results from the inflammatory, proteolytic and growth factor enriched SECRETOME of many types of senescent cells which leads to tissue repair or tissue and organ damage over time and links SASP to age-related disorders.
Trogocytosis	Process in which parts of target cell membrane is actively chopped up or gnawed and transferred to monocytes. Although similar to PHAGOCYTOSIS it does not involve engulfing.

Mn: G05

Tree Category: Genetic Phenomena

Term	Ms
	Changes in the ANTIGEN population by slow and minor (antigenic drift) or sudden and major mutations (antigenic shift). Accumulation of minor mutations in antigenic drift over time may require development of new vaccine (e.g., seasonal FLU VACCINES). Antigenic shift on the other hand is less common but may result in emergence of a new subtype or species and sometimes pandemics (e.g., H1N1 pandemics in 2009 and 2018 and COVID-19) due to lack of HERD IMMUNITY to the

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Term	Ms
	newly emerged novel pathogen.
Phase Variation	An adaptive mechanism used by microbes to avoid detection by the host or adapt to changes in environment by randomly and rapidly switch on and off of a gene by various mechanisms. between on and off phases. For instance, drug tolerant MYCOBACTERIUM TUBERCULOSIS arises though rapid reversible mutations in the glpK gene through phase variation.
Shelterin Complex	A TELOMERE cap complex consisting of telomere-specific proteins in association with telomeric DNA such as telomeric dsDNA-sDNA junction. They are involved in the protection of chromosome ends and TELOMERASE regulation and play a role in CELLULAR SENESCENCE and ageing-related pathology. In general it consists of six mostly TELOMERE-BINDING PROTEINS (POT1, RAP1, TIN2, TPP1, TRF1, and TRF2).

Mn: G07

Tree Category: Physiological Phenomena

_	
Term	Ms
Core Stability	A POSTURE in which an ideal body mass distribution is achieved for the ABDOMINAL CORE. Abdominal core stability and balance provides the body an ability to maintain equilibrium and control of the SPINE and PELVIC REGION during movement.
Fermented Beverages	Beverages that are prepared by using microorganisms to convert their components into various FERMENTATION end products.
Listening Effort	The deliberate allocation of mental resources to overcome obstacles in goal pursuit when carrying out a task, with listening effort applied more when tasks involved listening. (From Pichora-Fuller et al.2016)
Plant Senescence	In plants, similarly as in animals, an age-dependent irreversible process of changes leading to the arrest of CELL DIVISION and/or PROGRAMMED CELL DEATH.
Senescence- Associated Secretory Phenotype	A paracrine pro-inflammatory phenotype developed in senescing cells. The senescence-associated secretory phenotype (SASP) results from the inflammatory, proteolytic and growth factor enriched SECRETOME of many types of senescent cells which leads to tissue repair or tissue and organ damage over time and links SASP to age-related disorders.
Weight Cycling	Repeated cycles of weight loss followed by weight gain.

Mn: G09

Tree Category: Circulatory and Respiratory Physiological Phenomena

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Term	Ms
Opsonization	The process of recognizing and targeting particles by binding with OPSONINS (e.g., IgM, C1 and IgG) for phagocytosis or for antibody-dependent cell cytotoxicity.

Mn: G11

Tree Category: Musculoskeletal and Neural Physiological Phenomena

Term	Ms
Brain-Gut Axis	An interactive network between the GASTROINTESTINAL TRACT (gut) and the brain principally mediated through the ENTERIC NERVOUS SYSTEM. Control of the gut activities during stress, for instance, is mediated by activation of neuroendocrine hormones (e.g., CORTICOTROPIN-RELEASING FACTOR). Conversely, INTESTINAL MICROBIOTA associate with the CENTRAL NERVOUS SYSTEM through the axis via microorganism-derived products (e.g., UROCORTINS). Some functional GASTROINTESTINAL DISORDERS (e.g., IRRITABLE BOWEL SYNDROME) have dysregulated brain-gut axis.
Core Stability	A POSTURE in which an ideal body mass distribution is achieved for the ABDOMINAL CORE. Abdominal core stability and balance provides the body an ability to maintain equilibrium and control of the SPINE and PELVIC REGION during movement.
Exergaming	Videogaming that involves the player's whole body in physical exercises in order to play the videogames.
Nordic Walking	Form of brisk walking, utilizing walking poles, which actively engages the trunk and upper limbs during walking, maintaining the natural gait, while the hands are performing an open–close cycle in an alternating manner.

Mn: G12

Tree Category: Immune System Phenomena

Term	Ms
Antigenic Drift and Shift	Changes in the ANTIGEN population by slow and minor (antigenic drift) or sudden and major mutations (antigenic shift). Accumulation of minor mutations in antigenic drift over time may require development of new vaccine (e.g., seasonal FLU VACCINES). Antigenic shift on the other hand is less common but may result in emergence of a new subtype or species and sometimes pandemics (e.g., H1N1 pandemics in 2009 and 2018 and COVID-19) due to lack of HERD IMMUNITY to the newly emerged novel pathogen.
Endotoxin Tolerance	Reduced capacity to respond to subsequent ENDOTOXIN challenges after an initial exposure. It is characterized by reduced responsiveness of INNATE IMMUNE RESPONSES, a shift from pro- to anti-inflammatory cell phenotype and impaired

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Term	Ms
	ANITGEN PRESENTATION.
Opsonization	The process of recognizing and targeting particles by binding with OPSONINS (e.g., IgM, C1 and IgG) for phagocytosis or for antibody-dependent cell cytotoxicity.
Trogocytosis	Process in which parts of target cell membrane is actively chopped up or gnawed and transferred to monocytes. Although similar to PHAGOCYTOSIS it does not involve engulfing.

Mn: G15

Tree Category: Plant Physiological Phenomena

Term	Ms
	In plants, similarly as in animals, an age-dependent irreversible process of changes leading to the arrest of CELL DIVISION and/or PROGRAMMED CELL DEATH.

Mn: G16

Tree Category: Biological Phenomena

Term	Ms
Anaerobic Ammonia Oxidation	A process facilitated by specialized bacteria (PLANCTOMYCETES) involving the oxidation of ammonia to gaseous nitrogen by using nitrite as the electron acceptor.
Anthropogenic Effects	Environmental alterations resulting from human activities.
Antigenic Drift and Shift	Changes in the ANTIGEN population by slow and minor (antigenic drift) or sudden and major mutations (antigenic shift). Accumulation of minor mutations in antigenic drift over time may require development of new vaccine (e.g., seasonal FLU VACCINES). Antigenic shift on the other hand is less common but may result in emergence of a new subtype or species and sometimes pandemics (e.g., H1N1 pandemics in 2009 and 2018 and COVID-19) due to lack of HERD IMMUNITY to the newly emerged novel pathogen.
Coral Bleaching	The process whereby large extents of CORAL rapidly pale through loss of their algal endosymbionts via destabilization of the coral–algal SYMBIOSIS. (from https://doi.org/10.1111/mec.15337, January 11, 2021)

Mn: G17

Tree Category: Mathematical Concepts

Report for Year (DX)2022

Term	Ms
	A data mining technique in which subjective information such as sentiments, OPINIONS, and attitudes are extracted and analyzed from data.

Mn: H01

Tree Category: Natural Science Disciplines

Term	Ms
Geroscience	The study of the BIOLOGY; BIOCHEMISTRY; and PHYSIOLOGY of AGING and the AGED and age-related diseases such as CARDIOVASCULAR DISEASES; DIABETES MELLITUS; and CANCER, as well as debilitating conditions like ARTHRITIS; FATIGUE; and FRAILTY.
Translational Science, Biomedical	The field of investigation which seeks to understand the scientific and operational principles underlying each step of the translational process to increase the efficiency and effectiveness of translational research in all therapeutic areas. (from Nat Rev Drug Discov 2018 Jul;17(7):455-456)

Mn: H02

Tree Category: Health Occupations

Term	Ms
Genomic Medicine	A medical discipline using genomic information about an individual as part of their clinical care (e.g. for diagnostic or therapeutic decision-making) and the health outcomes and policy implications of that clinical use. (From www.genome.gov/health/Genomics-and-Medicine accessed 12/28/2020)
Geroscience	The study of the BIOLOGY; BIOCHEMISTRY; and PHYSIOLOGY of AGING and the AGED and age-related diseases such as CARDIOVASCULAR DISEASES; DIABETES MELLITUS; and CANCER, as well as debilitating conditions like ARTHRITIS; FATIGUE; and FRAILTY.

Mn: I01

Tree Category: Social Sciences

Term	Ms
Adolescent Fathers	Fathers initially aged less than 19 years at the time of child's birth.
Child Poverty	A situation of children (ages 0-17 inclusive) living in households with income below the U.S. Depertment of Health and Human Services Federal Poverty Threshold, often leading to a lack of food, sanitation, shelter, health care and education needed to survive and thrive.
Citizenship	Status of a person recognized under the law of a sovereign nation as a

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Term	Ms
	member of or belonging to that nation.
Climate Models	Computer representations that simulate or predict the behavior or activity of WEATHER systems, processes, or phenomena.
Community Resources	The financial, material, and/or human assets of a community which have the potential to improve the QUALITY OF LIFE in community.
Community Support	Community support systems that may be organized through extended family members, friends, neighbors, religious organizations, community programs, cultural and ethnic organizations, or other support groups or organizations. (https://www.lawinsider.com/dictionary/community-support-systems)
Economic Stability	An absence of excessive economic fluctuations which allows people the ability to access resources. (https://www.ruralhealthinfo.org/toolkits/sdoh/2/economic-stability/index#:~:text=Economic%20stability%20allows%20people%20the,provides%20a%20stable%2C%20living%20wage.&text=Income%2Fpoverty%20and%20financial%20resources)
Environmental Justice	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. (https://www.epa.gov/environmentaljustice/learn-about-environmental-justice)
Environmentalism	Advocacy for the preservation, restoration, or improvement of the natural environment. It aims to reduce the impact of human activities on the earth and its inhabitants.
Ethnic and Racial Minorities	Socially constructed groups of people who differ in race, color or national, religious, or cultural origin from the dominant group and is often the majority population of the country in which they live. Ethnic minority groups generally share a common sense of identity and common characteristics such as language, religion, tribe, nationality, race, or a combination thereof.
Health Inequities	Differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age.(https://www.who.int/news-room/facts-in-pictures/detail/health-inequities-and-their-causes#:~:text=Health %20inequities%20are%20differences%20in,right%20mix%20of %20government%20policies.)
Home Environment	Aspects of peoples' living conditions that may and can impact people's health and/or well-being. These factors may be physical (e.g., housing quality) or social circumstances (e.g., living alone).
Housing	This encompasses a number of challenges, such as having trouble paying

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Term	Ms
Instability	rent, living in overcrowded conditions, moving frequently, living with friends or relatives out of necessity, being unhoused, or spending the bulk of household income (>50%) on housing. (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/housing-instability)
Housing Quality	Physical condition of a person's home as well as the quality of the social and physical environment in which the home is located. Aspects of housing quality include air quality, home safety, space per individual, and the presence of mold, asbestos, or lead. Housing quality is affected by factors like a home's design and age.(https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing)
Intersectional Framework	Interconnections of social categorizations such as race, class, and gender, creating overlapping and interdependent systems of discrimination or disadvantage.
Medicine, Persian	Traditional concepts of medicine and associated methods reflected in medicine in PERSIA.
Neighborhood Characteristics	Characteristics that may describe the demographic, social, built environment, or economic characteristics of a geographic area in which people live and can affect health and well-being of neighborhood residents. Neighborhood environments include the physical environment (unsafe air/water), built environment (sidewalks/greenspace) and the social environment (safety, sense of community).
Ostracism	An extreme form of rejection in which one is excluded and ignored in the presence of others.
Social Deprivation	Limited access to society's resources due to poverty. discrimination, or other disadvantage. Conditions based on seven demographic characteristics collected in the American Community Survey (ACS): often include percent living in poverty, percent with less than 12 years of education, percent of single parent households, percent living in rented housing unit, percent living in overcrowded housing unit, percent of households without a car, and percent of non-employed adults under the age of 65 years.(https://dictionary.apa.org/socialdeprivation).
Social Status	The relative prestige, authority, and privilege of an individual or group.
Social Structure	The complex of relationships and systems that organize and regulate interpersonal phenomena in a group or society. The social structure of a group includes its norms and roles and the status, attraction, and communication relations that link one member to another (see group structure). The social structure of a society includes the complex of relations

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Term	Ms
	among its constituent individuals, groups, institutions, customs, and mores. (https://dictionary.apa.org/social-structure)
Social Vulnerability	The characteristics of a person or community that affect their capacity to anticipate, confront, repair, and recover from the effects of a natural or human-caused disaster.(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC71 79070/)
Sociodemographic Factors	Indicators used to describe individuals in terms of age, race/ethnicity, sex, gender, primary language educational attainment, employment status, income, profession, marital status, total number of persons living in the house and living arrangements, and similar factors.
Systemic Racism	Processes of racism that are embedded in laws (local, state, and federal), policies, and practices of society and its institutions that provide advantages to racial groups deemed as superior, while differentially oppressing, disadvantaging, or otherwise neglecting racial groups viewed as inferior. Differential access to the goods, services, and opportunities of society by race. Institutionalized racism is normative, sometimes legalized, and often manifests as inherited disadvantage. It is structural, having been codified in our institutions of custom, practice, and law, so there need not be an identifiable perpetrator. (ttps://www.cdc.gov/chronicdisease/programs-impact/sdoh.htm)
Vaccination Hesitancy	Delay in acceptance of vaccination despite availability.

Mn: I02

Tree Category: Education

Term	Ms
Computerized Adaptive Testing	Testing administered with level of difficulty I is tailored to the test taker.
Gamification	Application of game mechanics to non-game contexts to engage audiences and to inject some entertainment into mundane activities besides generating motivational and cognitive benefits.

Mn: 103

Tree Category: Human Activities

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Term	Ms
Exergaming	Videogaming that involves the player's whole body in physical exercises in order to play the videogames.
Hunting	Finding or capuring animals for food or sport.
Nordic Walking	Form of brisk walking, utilizing walking poles, which actively engages the trunk and upper limbs during walking, maintaining the natural gait, while the hands are performing an open–close cycle in an alternating manner.
Rugby	Team sport game played on a rectangular field with an oval ball by two teams of 15 players (in Rugby Union Play) or 13 players (in Rugby League Play).

Mn: J01

Tree Category: Technology, Industry, and Agriculture

Term	Ms
Access to Healthy Foods	Convenient availability to affordable foods that support healthy eating patterns. Access may be limited due to having a limited income or living far away from sources of healthful and affordable food.
Autonomous Vehicles	Vehicles controlled by automatic directions and instructions.
Decellularized Extracellular Matrix	A biomaterial with a network of macromolecules with varying composition and organization of tissue-specific proteins and polysaccharides. It is prepared from organs and tissues by decellularization (e.g., with a detergent) to mimic native microenvironment for tissue-specific functions.
Designed Ankyrin Repeat Proteins	Genetically engineered antibody MIMETIC PROTEINS, derived from ANKYRIN PROTEINS. They offer advantages over antibodies because of their highly specific target PROTEIN BINDING with high affinity and specificity.
Haptic Technology	The study of the use of touch and KINESTHESIS in order to produce HAPTIC COMPUTER INTERFACES that will allow users to interact with digital objects by kinesthetic feedback, force feedback, and tactile feedback.
Sound Recordings	The storing of sound signals on various media such as cylinders, analog discs, digital discs, tapes, and wires.[LCSH, 10/27/2020]
Unmanned Aerial Devices	Powered, aerial vehicles that do not carry a human operator, use aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload. (https://apps.dtic.mil/sti/pdfs/ADA467807 pdf accessed 12/27/2020)

Mn: J02

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Tree Category: Food and Beverages

Term	Ms
Fermented Beverages	Beverages that are prepared by using microorganisms to convert their components into various FERMENTATION end products.

Mn: K01

Tree Category: Humanities

Term	Ms
Environmental Justice	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. (https://www.epa.gov/environmentaljustice/learn-about-environmentaljustice)

Mn: L01

Tree Category: Information Science

Term	Ms
Cellular Automata	Space-oriented dynamic modeling ALGORITHMS acting in an array of cells, whose temporal states evolve based on the rules (algorithms) of the automata. They are used to model complex dynamic systems for study and analysis in a variety of scientific fields.
Disinformation	False information deliberately and often covertly spread in order to influence public opinion or obscure the truth. (https://www.merriam-webster.com/dictionary/disinformation)
Exergaming	Videogaming that involves the player's whole body in physical exercises in order to play the videogames.
Gamification	Application of game mechanics to non-game contexts to engage audiences and to inject some entertainment into mundane activities besides generating motivational and cognitive benefits.
Gaslighting	Form of emotional or psychological abuse where an individual (or a group) makes someone question their perceptions of reality—including their memories, their thoughts, and the events taking place around them. It often exploits "gender-based stereotypes and structural and institutional inequalities
Haptic Interfaces	Computer peripherals that enable users to interact three dimensionally with objects in virtual environments, or with equipment being teleoperated, by receiving kinesthetic, tactile, and force feedback.
Haptic Technology	The study of the use of touch and KINESTHESIS in order to produce HAPTIC COMPUTER INTERFACES that will allow users to interact with digital objects by

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Term	Ms
	kinesthetic feedback, force feedback, and tactile feedback.
Infodemic	Typically refers to a rapid and far-reaching spread of both accurate and inaccurate information about something, such as a disease. As facts, rumors, and fears mix and disperse, it becomes difficult to learn essential information about an issue. (from Merriam Webster Dictionary)
Infodemiology	The study of determinants and distribution of health information and misinformation in electronic media to inform public heath and public policy in the prevention, detection, and management of INFODEMICS.
Predatory Journals as Topic	Works about medical journals that publish articles online with little or no peer review, low academic standards, and little credibility. (from Can Fam Physician. 2019 Feb; 65(2):92).
Sentiment Analysis	A data mining technique in which subjective information such as sentiments, OPINIONS, and attitudes are extracted and analyzed from data.
Sound Recordings	The storing of sound signals on various media such as cylinders, analog discs, digital discs, tapes, and wires.[LCSH, 10/27/2020]

Mn: M01

Tree Category: Persons

Term	Ms
Adolescent Fathers	Fathers initially aged less than 19 years at the time of child's birth.
Adolescent Mothers	Mothers aged less than 19 years at the time of child's conception or birth.
Birth Cohort	Persons classified by a particular year or a specific time period of birth.
Centenarians	Persons 100 years of age and older.
Elite Controllers	Infected individuals with naturally low levels of pathogen replication (e.g., HIV LONG-TERM SURVIVORS with low VIRAL LOAD of HIV) and remain healthy. Some elite controllers have immune systems which prevent disease progression (e.g., high CD4 COUNTS). Studies of how they remain disease-free may contribute to development of new therapeutic approaches and targets.
HIV Non- Progressors	HIV-positive individuals with low VIRAL LOAD of HIV who never develop AIDS even without antiviral treatment.
Health Disparity, Minority and Vulnerable	Groups of persons whose special characteristics make them a minority, vulnerable, and frequently subjected to conditions with limited levels of access to health care and other opportunities.

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Term	Ms
Populations	
Nonagenarians	Persons 90 years of age and older.
Octogenarians	Persons 80 to 89 years of age.

Mn: N01

Tree Category: Population Characteristics

Tree Category: Population Characteristics	
Term	Ms
Disability- Adjusted Life Years	It is the sum of years of life lost due to PREMATURE MORTALITY and the number of years lived with disability, due to disease or health condition in a population. This is a measurement of BURDEN OF DISEASE.
Health Inequities	Differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age.(https://www.who.int/news-room/facts-in-pictures/detail/health-inequities-and-their-causes#:~:text=Health%20inequities%20are%20differences%20in,right%20mix%20of%20government%20policies.)
Healthy Life Expectancy	The expected number of remaining years of life spent in good health from a particular age, assuming current rates of mortality and morbidity.
Home Environment	Aspects of peoples' living conditions that may and can impact people's health and/or well-being. These factors may be physical (e.g., housing quality) or social circumstances (e.g., living alone).
Housing Instability	This encompasses a number of challenges, such as having trouble paying rent, living in overcrowded conditions, moving frequently, living with friends or relatives out of necessity, being unhoused, or spending the bulk of household income (>50%) on housing. (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/housing-instability)
Housing Quality	Physical condition of a person's home as well as the quality of the social and physical environment in which the home is located. Aspects of housing quality include air quality, home safety, space per individual, and the presence of mold, asbestos, or lead. Housing quality is affected by factors like a home's design and age.(https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing)
Neighborhood Characteristics	Characteristics that may describe the demographic, social, built environment, or economic characteristics of a geographic area in which people live and can affect health and well-being of neighborhood residents. Neighborhood environments include the physical environment (unsafe air/water), built environment (sidewalks/greenspace) and the social environment (safety, sense of community).

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Mn: N02

Tree Category: Health Care Facilities, Manpower, and Services

Term	Ms
Community Support	Community support systems that may be organized through extended family members, friends, neighbors, religious organizations, community programs, cultural and ethnic organizations, or other support groups or organizations. (https://www.lawinsider.com/dictionary/community-support-systems)
Hospital to Home Transition	Patient-centered hospital discharge to home planning and transition.
Laboratories, Clinical	Facilities equipped to carry out CLINICAL LABORATORY TECHNIQUES.
Overdiagnosis	The labeling of a person with a disease or abnormal condition that would not have caused the person harm if left undiscovered, creating new diagnoses by medicalizing ordinary life experiences, or expanding existing diagnoses by lowering thresholds or widening criteria without evidence of improved outcomes. Individuals derive no clinical benefit from overdiagnosis although they may experience physical, psychological or financial harm.
Overtreatment	Remedial treatment or preventive procedures of a disease which is done too frequently or excessively often from OVERDIAGNOSIS.

Mn: N03

Tree Category: Health Care Economics and Organizations

Term	Ms
Citizenship	Status of a person recognized under the law of a sovereign nation as a member of or belonging to that nation.
Community Resources	The financial, material, and/or human assets of a community which have the potential to improve the QUALITY OF LIFE in community.
Low-Value Care	Medical services, including tests and procedures, that should not be performed given their potential for harm or the existence of comparably effective and often less expensive alternatives.
Social Cohesion	Strength of relationships and the sense of belongingness and solidarity among members of a community (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/social-cohesion).
Vaccination Hesitancy	Delay in acceptance of vaccination despite availability.

Mn: N04

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Tree Category: Health Services Administration

Term	Ms	
Biosecurity	Institutional and personal security measures designed to prevent the loss, theft, misuse, diversion or intentional release of pathogens and toxins.(from https://www.who.int/influenza/pip/BiosecurityandBiosafety_EN_20Mar2018.pdf February,24, 2021)	
Medication Review	A structured evaluation of a patient's medicines with the aim of optimizing medicines use and improving health outcomes, detecting drug related problems and recommending interventions.	
Rapid Onsite Evaluation	A rapid laboratory service provided onsite at clinical settings (e.g., DIAGNOSTIC IMAGING suites) typically for cytomorphologic features on FINE-NEEDLE ASPIRATION.	

Mn: N05

Tree Category: Health Care Quality, Access, and Evaluation

Term	Ms
Ambulatory Care Sensitive Conditions	Various health conditions in OUTPATIENT CARE settings for which adequate management, treatment and interventions delivered in the ambulatory care setting could potentially prevent HOSPITALIZATION.
Canonical Correlation Analysis	Mathematical procedure that transforms vectors of variables into canonical variate pairs and finds their correlation to describe strength of association.
Overdiagnosis	The labeling of a person with a disease or abnormal condition that would not have caused the person harm if left undiscovered, creating new diagnoses by medicalizing ordinary life experiences, or expanding existing diagnoses by lowering thresholds or widening criteria without evidence of improved outcomes. Individuals derive no clinical benefit from overdiagnosis although they may experience physical, psychological or financial harm.
Overtreatment	Remedial treatment or preventive procedures of a disease which is done too frequently or excessively often from OVERDIAGNOSIS.
Vaccination Hesitancy	Delay in acceptance of vaccination despite availability.

Mn: N06

Tree Category: Environment and Public Health

Term	Ms
Ambulatory Care Sensitive	Various health conditions in OUTPATIENT CARE settings for which adequate management, treatment and interventions delivered in the ambulatory care

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Term	Ms
Conditions	setting could potentially prevent HOSPITALIZATION.
Canonical Correlation Analysis	Mathematical procedure that transforms vectors of variables into canonical variate pairs and finds their correlation to describe strength of association.
Census Tract	Small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the U. S. Census Bureau's Participant Statistical Areas Program.(https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13)
Chemometrics	The use of statistical and mathematical methods to analyze chemical observations and phenomena, such as epidemiological analysis of spectroscopically identified bacteria or QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIP.
Digit Ratios	Ratio between lengths of fingers and/or toes that is sometimes characteristic of an exposure to ENDOCRINE DISRUPTORS during FETAL DEVELOPMENT.
Disability- Adjusted Life Years	It is the sum of years of life lost due to PREMATURE MORTALITY and the number of years lived with disability, due to disease or health condition in a population. This is a measurement of BURDEN OF DISEASE.
Environmentalism	Advocacy for the preservation, restoration, or improvement of the natural environment. It aims to reduce the impact of human activities on the earth and its inhabitants.
Healthy Life Expectancy	The expected number of remaining years of life spent in good health from a particular age, assuming current rates of mortality and morbidity.
Home Environment	Aspects of peoples' living conditions that may and can impact people's health and/or well-being. These factors may be physical (e.g., housing quality) or social circumstances (e.g., living alone).
Housing Quality	Physical condition of a person's home as well as the quality of the social and physical environment in which the home is located. Aspects of housing quality include air quality, home safety, space per individual, and the presence of mold, asbestos, or lead. Housing quality is affected by factors like a home's design and age.(https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing)
Light Pollution	The inappropriate or excessive use of artificial lighting at night.
Neighborhood Characteristics	Characteristics that may describe the demographic, social, built environment, or economic characteristics of a geographic area in which people live and can affect health and well-being of neighborhood residents. Neighborhood environments include the physical environment (unsafe air/water), built

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Term	Ms
	environment (sidewalks/greenspace) and the social environment (safety, sense of community).
Radiation Fibrosis Syndrome	Radiation-induced fibrosis due to increased production of FIBRIN. Its symptoms include CERVICAL DYSTONIA, difficulty with speech and swallowing, swelling in the radiation field and TRISMUS.
Serial Infection Interval	The interval of time between the onset of symptoms in the primary and secondary case. The serial interval is one of the significant epidemiological measures that determine the spread of infectious disease.

Mn: **Z01**

Tree Category: Geographic Locations

Term	Ms
European Alpine Region	A territory which encompasses eight European countries: Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland. The height of the Alpine mountain ridges range up to Mont Blanc at 15,782 feet above sea level, and its altitude decreases from west to east.