

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 2019-nCoV Vaccine mRNA-1273

mRNA vaccine against SARS-CoV-2 developed by Moderna.

**Tree locations:**

COVID-19 Vaccines D20.215.894.899.085.250  
mRNA Vaccines D12.776.828.868.228.500.500  
D20.215.894.865.450.500.500  
D23.050.865.450.500.500

### 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.

**Tree locations:**

Torso A01.923.112

### 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.

**Tree locations:**

Food Insecurity J01.576.423.750.688.500  
Food Security J01.576.423.750.875.500

### Ad26COVS1

A viral vector vaccine designed against SARS-CoV-2 developed by Johnson & Johnson. Its vector encodes the SARS-CoV-2 Spike protein.

**Tree locations:**

COVID-19 Vaccines D20.215.894.899.085.125

### 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.

**Tree locations:**

Adjuvants, Immunologic D27.505.696.477.067.500  
Adjuvants, Pharmaceutic D26.650.064.500  
D27.720.744.064.500

### Adolescent Fathers

Fathers initially aged less than 19 years at the time of child's birth.

*FX: Pregnancy in Adolescence*

**Tree locations:**

Fathers F01.829.263.500.320.100.500  
I01.880.853.150.500.340.210.500  
M01.620.390.500

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Adolescent Mothers

Mothers aged less than 19 years at the time of child's conception or birth.

*FX: Pregnancy in Adolescence*

**Tree locations:**

Mothers M01.620.630.100

### 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.

**Tree locations:**

ADP-Ribosylation Factors D08.811.277.040.330.300.400.100.050  
D12.776.157.325.515.100.550  
D12.776.476.338.400.100.050

### 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.

*FX: Aerosols*

**Tree locations:**

Complex Mixtures D20.065

### 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).

**Tree locations:**

Eutheria B01.050.150.900.649.313.250

### 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.

*FX: Quality of Health Care*

**Tree locations:**

Disease Attributes C23.550.291.156  
Health Status Indicators E05.318.308.980.438.475.183  
N05.715.360.300.800.438.375.046  
N06.850.520.308.980.438.475.012

### 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.

**Tree locations:**

Protein Serine-Threonine Kinases D08.811.913.696.620.682.700.074  
D12.776.476.563.074

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Nitrogen Cycle G02.111.587.125  
G02.607.560.125  
G16.500.768.125

### 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.

**Tree locations:**

Andrographis B01.875.800.575.912.250.583.040.044.500

### 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.

**Tree locations:**

Adaptor Proteins, Signal Transducing D12.644.360.024.082  
D12.776.476.024.087

### 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.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.100  
D12.776.467.100.050.100  
D23.529.100.050.100

### 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.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.200  
D12.776.467.100.050.200  
D23.529.100.050.200

### Angiopoietin-Like Protein 3

An angiopoietin-like protein that plays a role in regulation of LIPOPROTEIN metabolism.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.300  
D12.776.467.100.050.300  
D23.529.100.050.300

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.600  
D12.776.467.100.050.600  
D23.529.100.050.550

### Angiopoietin-Like Protein 7

An angiopoietin-like protein that is expressed in NERVE TISSUE, KERATOCONUS corneas, TRABECULAR MESHWORK.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.700  
D12.776.467.100.050.700  
D23.529.100.050.700

### 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.

**Tree locations:**

Angiopoietin-like Proteins D12.644.276.100.050.800  
D12.776.467.100.050.800  
D23.529.100.050.800

### Anthropogenic Effects

Environmental alterations resulting from human activities.

**Tree locations:**

Ecological and Environmental Phenomena G16.500.075

### Anticoagulant Reversal Agents

Agents that have the potential to reverse specific anticoagulation therapies.

*FX: Antidotes*

**Tree locations:**

Hemostatics D27.505.954.502.270.463.046

### Anticoagulation Reversal

Treatment strategies used to manage bleeding events that occur during the use of ANTICOAGULANTS.

**Tree locations:**

Hemostatic Techniques E02.520.045

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Antifibrotic Agents

These agents are used to reduce FIBROSIS affecting organs and formation of scar TISSUES such as in SCLERODERMA patients.

**Tree locations:**

Anti-Inflammatory Agents D27.505.954.158.273

### 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.

**Tree locations:**

Antigenic Variation G05.365.073.500  
G12.500.249.500  
Genetic Drift G05.045.300.500  
G05.330.320.500  
G16.075.300.500

### Antiglaucoma Agents

Agents used to preserve visual function by decreasing INTRAOCULAR PRESSURE (IOP) by targeting the AQUEOUS HUMOR.

**Tree locations:**

Therapeutic Uses D27.505.954.069

### 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.

**Tree locations:**

Peptides D12.644.066

### 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.

**Tree locations:**

Proteins D12.776.066

### Aquatic Therapy

Physical therapy administered while the body is immersed in an aquatic environment.

*FX: Balneology*

**Tree locations:**

Hydrotherapy E02.779.492.250  
E02.831.535.492.250

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Viral Structures A21.063

### Autonomous Vehicles

Vehicles controlled by automatic directions and instructions.

**AN: self-driving cars: coordinate with AUTOMOBILES**

**Tree locations:**

Motor Vehicles J01.937.500.300

### 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.

**AN: general or unspecified; prefer specifics**

**Tree locations:**

Ankylosis C05.550.069.340

Spondylarthropathies C05.116.900.853.625.800.744  
C05.550.114.865.800.744

### Besnoitia

An apicomplexan parasitic genus of the family SARCOCYSTIDAE. Infection by Besnoitia is BESNOITIASIS.

*FX: Coccidiosis*

**Tree locations:**

Sarcocystidae B01.043.075.189.250.750.275

### 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/depcreated-unorganized/imported-assets/tjc/system-folders/joint-commission-online/quick\\_safety\\_issue\\_23\\_apr\\_2016pdf.pdf?db=web&hash=A5852411BCA02D1A918284EBAA775988](https://www.jointcommission.org/-/media/depcreated-unorganized/imported-assets/tjc/system-folders/joint-commission-online/quick_safety_issue_23_apr_2016pdf.pdf?db=web&hash=A5852411BCA02D1A918284EBAA775988))

**Tree locations:**

Prejudice F01.145.813.550.281  
F01.829.595.312

### 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.

**Tree locations:**

Cellular Structures A11.284.037

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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](https://www.who.int/influenza/pip/BiosecurityandBiosafety_EN_20Mar2018.pdf) February,24, 2021)

*FX: Containment of Biohazards*

*FX: Communicable Disease Control*

**Tree locations:**

Security Measures N04.452.910.150

### Birth Cohort

Persons classified by a particular year or a specific time period of birth.

*FX: Cohort Studies*

**Tree locations:**

Age Groups M01.060.261

### 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.

**Tree locations:**

Exercise Therapy E02.760.169.063.500.387.125

E02.779.483.125

E02.831.535.483.125

### BNT162 Vaccine

mRNA vaccine against SARS-CoV-2 developed by Pfizer and BioNTech.

**Tree locations:**

COVID-19 Vaccines D20.215.894.899.085.500

mRNA Vaccines D12.776.828.868.228.500.750

D20.215.894.865.450.500.750

D23.050.865.450.500.750

### Body Odor

Strong or unusual odor related to the body. Occasional abnormal body odor may be a temporary effect of a metabolic change.

**Tree locations:**

Signs and Symptoms C23.888.104

### 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.

*FX: Gastrointestinal Microbiome*

**Tree locations:**

Nervous System Physiological Phenomena G11.561.138

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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 traditional medicine and contain various QUASSINS including bruceines and brusatol.

**Tree locations:**

Brucea B01.875.800.575.912.250.898.111.500

### **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.

**AN: infection: coordinate with CANDIDIASIS or its indentions**

**Tree locations:**

Candida B01.300.107.795.095.363

### **Canonical Correlation Analysis**

Mathematical procedure that transforms vectors of variables into canonical variate pairs and finds their correlation to describe strength of association.

**Tree locations:**

Multivariate Analysis E05.318.740.150.500.250  
N05.715.360.750.125.500.250  
N06.850.520.830.150.500.250

### **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.

**Tree locations:**

Cell Culture Techniques E05.242.223.375

### **Cell Death Reversal**

Recovery of cells from one of the activated pathways of regulated cell death.

**Tree locations:**

Cell Death G04.146.477

### **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.

**Tree locations:**

Algorithms L01.224.050.531  
Computer Simulation L01.224.160.187  
Models, Theoretical E05.599.032



## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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](https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13))

#### **Tree locations:**

Geographic Mapping E05.318.740.933.249.500  
N06.850.520.830.933.249.500

### Centaurea benedicta

A plant species of the genus CENTAUREA and family ASTERACEAE. Members contain sesquiterpene lactone CNICIN.

#### **Tree locations:**

Centaurea B01.875.800.575.912.250.100.188.500

### Centenarians

Persons 100 years of age and older.

#### **Tree locations:**

Aged, 80 and over M01.060.116.100.080.500

### ChAdOx1 nCoV-19

A viral vector vaccine against SARS-CoV-2 developed by AstraZeneca. Its vector encodes the SARS-CoV-2 Spike protein.

#### **Tree locations:**

COVID-19 Vaccines D20.215.894.899.085.063  
Vaccines, DNA D20.215.894.865.450.250.500

### 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.

#### **Tree locations:**

Chemistry Techniques, Analytical E05.196.168  
Epidemiologic Measurements N06.850.505.300  
Statistics as Topic E05.318.740.244

### Child Poverty

A situation of children (ages 0-17 inclusive) living in households with income below the U.S. Department 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.

#### **Tree locations:**

Poverty I01.880.735.634.500

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Chromobox Protein Homolog 5

A protein located within beta-heterochromatin that is involved in suppression of POSITION EFFECT VARIATION.

**Tree locations:**

Chromosomal Proteins, Non-Histone D12.776.660.235.300  
D12.776.664.235.300

### 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.

**Tree locations:**

Chronic Disease C23.550.291.500.298  
Ischemia C23.550.513.178  
Peripheral Arterial Disease C14.907.137.126.307.500.500  
C14.907.617.671.500

### Citizenship

Status of a person recognized under the law of a sovereign nation as a member of or belonging to that nation.

**Tree locations:**

Human Rights I01.880.604.473.326  
N03.706.437.326

### 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.

**Tree locations:**

Chloride Channels D12.776.157.530.400.175.094  
D12.776.543.550.450.175.094  
D12.776.543.585.400.175.094

### Climate Models

Computer representations that simulate or predict the behavior or activity of WEATHER systems, processes, or phenomena.

**Tree locations:**

Forecasting I01.320.250  
Models, Theoretical E05.599.520

### 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).

**Tree locations:**

Cognitive Science F04.096.628.255.750  
Psychology F04.096.628.017

## **New MeSH Headings with Scope Notes For MeSH Year-> 2022**

### **Cognitive Restructuring**

A technique drawn from COGNITIVE BEHAVIOR THERAPY that helps an individual to identify, challenge and alter stress-inducing thought patterns and beliefs.

**Tree locations:**

Cognitive Behavioral Therapy F04.754.137.350.375

### **Collagen Type I, alpha 1 Chain**

A fibrillar collagen found predominantly in BONE and SKIN.

**Tree locations:**

Collagen Type I D05.750.078.280.300.100.500

### **Community Resources**

The financial, material, and/or human assets of a community which have the potential to improve the QUALITY OF LIFE in community.

**Tree locations:**

Health Care Economics and Organizations N03.055  
Sociological Factors I01.880.853.075

### **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>)

**Tree locations:**

Community Participation N02.421.143.212.150  
Social Support I01.880.853.500.600.250

### **Computerized Adaptive Testing**

Testing administered with level of difficulty I is tailored to the test taker.

**Tree locations:**

Needs Assessment I02.594.500

### **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.

**Tree locations:**

Receptors, Cytoplasmic and Nuclear D12.776.826.060

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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).

**Tree locations:**

Coptis B01.875.800.575.912.250.836.750.229.500

### **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)

*FX: Coral Reefs*

**Tree locations:**

Ecological and Environmental Phenomena G16.500.188

### **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.

**Tree locations:**

Postural Balance F02.830.816.541.752.500

G07.888.750.500.500

G11.427.690.500

G11.561.790.541.595.500

### **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.

**Tree locations:**

Tauopathies C10.574.945.312

### **Cyanobacteria Toxins**

Toxic secondary metabolites produced CYANOBACTERIA.

*FX: Toxoids*

**Tree locations:**

Bacterial Toxins D23.946.123.257

### **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.

**Tree locations:**

Cytochrome P-450 Enzyme System D08.244.453.003

D08.811.682.690.708.170.005

D12.776.422.220.453.005

Fatty Acids, Unsaturated D10.251.355.128

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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).

**Tree locations:**

Cytoplasmic Granules A11.284.430.214.190.500.780  
A11.284.430.214.190.875.190.190.384

### Dacryocystography

An image guided examination of the NASOLACRIMAL APPARATUS including NASOLACRIMAL DUCT.

**Tree locations:**

Diagnostic Imaging E01.370.350.240

### 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.

**Tree locations:**

Biocompatible Materials D25.130.535  
D27.720.102.130.500  
J01.637.051.130.535  
Extracellular Matrix A11.284.295.310.140

### 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).

*FX: Green Chemistry Technology*

**Tree locations:**

Solvents D27.720.844.250

### Defective Interfering Viruses

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

**Tree locations:**

Defective Viruses B04.265.135

### Delta-5 Fatty Acid Desaturase

A fatty acid desaturase that is a rate-limiting enzyme for the conversion from dihomogamma-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.

**Tree locations:**

Fatty Acid Desaturases D08.811.682.690.708.392.390

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Secretory Vesicles A11.284.430.214.190.875.190.880.810.250

### 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.

**Tree locations:**

Biomimetic Materials J01.637.087.375  
Recombinant Proteins D12.776.828.150

### Diaschisis

Loss or decreased brain function within intact region of the brain distant from the site of the lesion.

**Tree locations:**

Brain Diseases C10.228.140.390

### Digit Ratios

Ratio between lengths of fingers and/or toes that is sometimes characteristic of an exposure to ENDOCRINE DISRUPTORS during FETAL DEVELOPMENT.

**Tree locations:**

Anthropometry E01.370.600.024.350  
N06.850.505.200.100.550  
Body Weights and Measures E05.041.124.473

### Dihydroorotate Dehydrogenase

An oxidoreductase that catalyzes the conversion of DIHYDROOROTATE to orotate with QUINONE as an electron acceptor in the biosynthesis of PYRIMIDINES.

**Tree locations:**

Oxidoreductases Acting on CH-CH Group Donors D08.811.682.660.313

### 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.

**Tree locations:**

Life Expectancy E05.318.308.985.450.250  
N01.224.935.464.250  
N06.850.505.400.975.450.250  
N06.850.520.308.985.450.250

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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>)

#### Tree locations:

Deception F01.145.813.157.500  
Propaganda L01.143.790.500

### 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).

#### Tree locations:

Complex Mixtures D20.313  
Organic Chemicals D02.332

### DNA Methyltransferase 3A

A methyltransferase that catalyzes the addition of a methyl group to CYTOSINE residues of CpG dinucleotides and is required for genome-wide de novo DNA METHYLATION.

#### Tree locations:

DNA (Cytosine-5-)-Methyltransferases D08.811.913.555.500.350.100.500.750

### 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.

#### Tree locations:

Prefrontal Cortex A08.186.211.200.885.287.500.270.700.750

### 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.

#### Tree locations:

Microtubule-Associated Proteins D12.776.220.600.450.125

### Doublecortin Protein

A microtubule-associated protein that is primarily found in neuronal precursor cells and immature NEURONS in embryonic and adult cortical structures.

*FX: Classical Lissencephalies and Subcortical Band Heterotopias*

#### Tree locations:

Doublecortin Domain Proteins D12.776.220.600.450.125.500  
Microtubule-Associated Proteins D12.776.631.560.113

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Doublecortin-Like Kinases

A family of doublecortin domain-containing serine-threonine kinases that were originally identified in neuronal cells.

**Tree locations:**

Doublecortin Domain Proteins D12.776.220.600.450.125.750  
Protein Serine-Threonine Kinases D08.811.913.696.620.682.700.275  
D12.776.476.563.275

### 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>)

**Tree locations:**

Economic Factors I01.880.853.996.134.500

### 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.

*FX: Asymptomatic Diseases*

**Tree locations:**

Survivors M01.860.375

### Endoplasmic Reticulum Chaperone BiP

An ENDOPLASMIC RETICULUM specific chaperone of the HSP70 family. They are involved in folding and oligomerization of secreted and membrane proteins and ENDOPLASMIC RETICULUM STRESS related UNFOLDED PROTEIN RESPONSE.

**Tree locations:**

HSP70 Heat-Shock Proteins D12.776.580.216.375.100

### 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 ANITGEN PRESENTATION.

**Tree locations:**

Immune Tolerance G12.535.425.290

### 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>)

**Tree locations:**

Environmentalism I01.738.458.500  
Social Justice I01.880.604.473.700.500  
K01.752.566.479.830.750.500  
Social Responsibility K01.752.566.869.250



## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Environment N06.230.206  
Politics I01.738.458

### 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).

**Tree locations:**

Models, Biological E05.599.395.121

### 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.

**Tree locations:**

Burns C26.200.413  
Erythema C17.800.229.100  
C23.888.885.328.500

### 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.

**Tree locations:**

Benzofurans D03.633.100.127.203  
Nitriles D02.626.295  
Propylamines D02.092.831.230

### 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.

**AN: coordinate with specific ethnic group or racial group if pertinent**

**Tree locations:**

Sociological Factors I01.880.853.125

### 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.

**AN: do not confuse with ALPINE TUNDRA see TUNDRA**

**Tree locations:**

Europe Z01.542.025

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Cesarean Section E04.520.252.500.575  
Fetal Therapies E02.467.625

### Exergaming

Videogaming that involves the player's whole body in physical exercises in order to play the videogames.

*FX: Telerehabilitation*

**Tree locations:**

Exercise G11.427.410.698.277.140  
I03.350.140  
Video Games I03.450.642.693.930.500  
L01.224.900.930.500

### Fermented Beverages

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

**Tree locations:**

Beverages G07.203.100.559  
J02.200.559  
Fermented Foods G07.203.200.563  
J02.350.594

### Fibroblast Growth Factor-23

A specific fibroblast growth factor that is primarily synthesized by OSTEOCYTES and OSTEOBLASTS. It is involved in regulating phosphate homeostasis and renal phosphate excretion.

**Tree locations:**

Fibroblast Growth Factors D12.644.276.624.600

### 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.

**Tree locations:**

S100 Proteins D12.776.157.125.750.250  
D12.776.631.655.250

### 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.

**Tree locations:**

Ectodermal Dysplasia C16.131.077.350.568  
C16.131.831.350.568  
C16.320.850.250.568  
C17.800.804.350.568  
C17.800.827.250.568

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

*FX: Nitric Oxide*

**Tree locations:**

Breath Tests E01.370.100.500

### 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.

**Tree locations:**

Education I02.487

Software L01.224.900.340

### 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 $\beta$ 42) in ALZHEIMER DISEASE and activation of NOTCH RECEPTOR mediated SIGNAL PATHWAYS in certain cancer types.

**Tree locations:**

Enzyme Inhibitors D27.505.519.389.315

### 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..

**Tree locations:**

Propaganda L01.143.790.750

### Genital Diseases

Pathological processes involving the reproductive tract (GENITALIA).

**AN: general or unspecified; GENITAL DISEASES, MALE and GENITAL DISEASES, FEMALE are available**

**Tree locations:**

Urogenital Diseases C12.100

### 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.

**Tree locations:**

Therapeutic Uses D27.505.954.493

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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](http://www.genome.gov/health/Genomics-and-Medicine) accessed 12/28/2020)

**Tree locations:**

Clinical Medicine H02.403.200.550  
Therapeutics E02.479

### Germ Cell Ribonucleoprotein Granules

Cytoplasmic structures organized by RIBONUCLEOPROTEINS involved in RNA regulation in GERM CELLS.

**Tree locations:**

Cytoplasmic Ribonucleoprotein Granules A11.284.430.214.190.500.780.250  
A11.284.430.214.190.875.190.190.384.250

### 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 FRAILITY.

**Tree locations:**

Biological Science Disciplines H01.158.595  
Geriatrics H02.403.355.500

### 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.

**Tree locations:**

Computer Peripherals L01.224.230.260.115.625

### 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.

*FX: Haptic Interfaces*

*FX: Nonverbal Communication*

**Tree locations:**

Bioengineering J01.293.069.375  
Man-Machine Systems J01.897.441.500  
Technology J01.897.380  
Virtual Reality L01.224.160.875.500  
L01.296.555.500

### 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.

**Tree locations:**

Viral Protease Inhibitors D27.505.519.389.745.900.375

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Health Disparity, Minority and Vulnerable Populations

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.

**AN: INDEXER: Do not use; CATALOGER: Do not use**

**Tree locations:**

Persons M01.270

### 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.>)

**Tree locations:**

Health Status I01.240.425.513  
N01.224.425.394

### 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.

**Tree locations:**

Life Expectancy E05.318.308.985.450.500  
N01.224.935.464.500  
N06.850.505.400.975.450.500  
N06.850.520.308.985.450.500

### 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.

**Tree locations:**

Signal Transduction G02.111.820.200  
G04.835.300

### HIV Non-Progressors

HIV-positive individuals with low VIRAL LOAD of HIV who never develop AIDS even without antiviral treatment.

**Tree locations:**

Elite Controllers M01.860.375.500  
HIV Long-Term Survivors M01.860.400.500

### 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).

*FX: Built Environment*

**Tree locations:**

Environment N06.230.278  
Family Characteristics N01.824.308.250  
Residence Characteristics N01.224.791.300  
N06.850.505.400.800.300  
Social Conditions I01.880.853.450.641  
Social Environment I01.880.853.500.450

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Homeodomain Proteins D12.776.260.400.230  
Nuclear Proteins D12.776.660.415  
Transcription Factors D12.776.930.321

### 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.

*FX: Receptors, LDL*

**Tree locations:**

Hyperlipoproteinemia Type II C16.320.565.398.481.500  
C18.452.584.500.500.644.475.500  
C18.452.584.563.481.500  
C18.452.648.398.481.500

### Hospital to Home Transition

Patient-centered hospital discharge to home planning and transition.

**Tree locations:**

Continuity of Patient Care E02.760.169.094  
N02.421.585.169.094

### 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>)

**Tree locations:**

Economic Factors I01.880.853.996.134.750  
Socioeconomic Factors N01.824.363

### 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>)

**Tree locations:**

Built Environment N06.230.145.500.500  
Home Environment I01.880.853.450.641.500  
I01.880.853.500.450.500  
N01.224.791.300.500

### Hunting

Finding or capturing animals for food or sport.

**AN: human activity only; check tag humans**

**Tree locations:**

Human Activities I03.400  
Recreation I03.450.642.637

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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.

**Tree locations:**

Lymphocytes A11.118.637.555.567.269

### **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.

**Tree locations:**

Immunologic Factors D27.505.696.477.396

### **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)

**Tree locations:**

Information Dissemination L01.143.443.500

### **Infodemiology**

The study of determinants and distribution of health information and misinformation in electronic media to inform public health and public policy in the prevention, detection, and management of INFODEMICS.

**Tree locations:**

Public Health Informatics L01.313.750.500

### **Information Avoidance**

Choosing to not obtain knowledge even if having the information could be to one's benefit.

*FX: Avoidance Learning*

**Tree locations:**

Defense Mechanisms F01.393.537

### **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.

**Tree locations:**

Cerebral Cortex A08.186.211.200.885.287.500.364

## **New MeSH Headings with Scope Notes For MeSH Year-> 2022**

### **Interleukin Inhibitors**

IMMUNOSUPPRESSIVE AGENTS which inhibit the action of INTERLEUKINS.

**Tree locations:**

Immunosuppressive Agents D27.505.696.477.656.563

### **Intersectional Framework**

Interconnections of social categorizations such as race, class, and gender, creating overlapping and interdependent systems of discrimination or disadvantage.

**Tree locations:**

Social Behavior F01.145.813.339  
Sociology F04.096.879.757.100  
I01.880.453

### **Intestinal Failure**

Various intestinal diseases functionally defined as having reduced intestine function requiring PARENTERAL NUTRITION.

**Tree locations:**

Intestinal Diseases C06.405.469.462

### **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.

**AN: ANEMIA, IRON-DEFICIENCY is also available**

**Tree locations:**

Iron Metabolism Disorders C18.452.565.400

### **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.

**Tree locations:**

Glucuronidase D08.811.277.450.426.500  
Receptors, Fibroblast Growth Factor D12.776.543.750.750.400.370.250

### **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.

**Tree locations:**

Kruppel-Like Transcription Factors D12.776.260.522.532  
D12.776.930.375.532



## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Laboratories, Clinical

Facilities equipped to carry out CLINICAL LABORATORY TECHNIQUES.

*FX: Clinical Laboratory Techniques*

*FX: Clinical Laboratory Services*

**Tree locations:**

Laboratories N02.278.487.205

### 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 hydrophobic barrier. Pathological accumulation of lamellar bodies are also known in lipid storage diseases (e.g., LCAT DEFICIENCY; and HERMANSKY-PUDLAK SYNDROME).

**Tree locations:**

Cytoplasmic Granules A11.284.430.214.190.500.384

A11.284.430.214.190.875.190.190.472

Secretory Vesicles A11.284.430.214.190.875.190.880.810.375

### 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.

**Tree locations:**

Proteins D12.776.529

### 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.

**Tree locations:**

Social Theory F02.970.250

### Light Pollution

The inappropriate or excessive use of artificial lighting at night.

*FX: Chronobiology Disorders*

**Tree locations:**

Environmental Pollution N06.850.460.505

### 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)

**Tree locations:**

Auditory Perception F02.463.593.071.375

G07.888.125.375

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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).

**Tree locations:**

Skin Diseases, Vascular C17.800.862.406  
Thrombosis C14.907.355.830.573

### 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.

**Tree locations:**

Costs and Cost Analysis N03.219.151.725

### 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.

**Tree locations:**

Organic Chemicals D02.578

### 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.

**Tree locations:**

Mandible A02.835.232.781.324.502.632.365

### Mannose Receptor

A member of a family of endocytic receptors. Highly expressed on human macrophages, involved in regulating endocytosis, phagocytosis, and immune responses.

**Tree locations:**

Lectins, C-Type D12.776.503.280.508  
Mannose-Binding Lectins D12.776.503.311.750  
Receptors, Cell Surface D12.776.543.750.002

### 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.

**Tree locations:**

Crowding F01.145.875.281.500  
Social Behavior F01.145.813.542

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Mast Cell Activation Disorders

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 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.

**Tree locations:**

Immune System Diseases C20.762

### Mast Cell Activation Syndrome

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.

**Tree locations:**

Mast Cell Activation Disorders C20.762.500

### 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.

**Tree locations:**

Medication Systems N04.452.528.467

Patient Care Management N04.590.659

### Medicine, Persian

Traditional concepts of medicine and associated methods reflected in medicine in PERSIA.

**AN: traditional practice only; not for modern medicine in Iran (= MEDICINE + IRAN); MEDICINE, ARABIC is also available; follow author's terminology; Avicenna (also called Ibn Sina) is indexed as Avicenna + BIOGRAPHY + HISTORY OF MEDICINE, MEDIEVAL**

**Tree locations:**

Medicine, Traditional E02.190.488.708

I01.076.201.450.654.694

### 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.

**Tree locations:**

B-Lymphocyte Subsets A11.063.438.450.650

A11.118.637.555.567.550.450.650

A11.118.637.555.567.562.200.650

A15.145.229.637.555.567.550.450.650

A15.145.229.637.555.567.562.200.650

A15.382.032.438.450.650

A15.382.490.555.567.562.450.650

Immunological Memory Cells A11.118.637.555.567.269.500

## 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.

### **Tree locations:**

Immunological Memory Cells A11.118.637.555.567.269.750  
T-Lymphocyte Subsets A11.118.637.555.567.569.500.075  
A15.145.229.637.555.567.550.500.075  
A15.145.229.637.555.567.569.500.075  
A15.382.490.555.567.550.500.075  
A15.382.490.555.567.569.500.075

## Mentalization-Based Therapy

Mentalization-based therapy (MBT) is a type of long-term psychotherapy that is based on the use of MENTALIZATION.

### **Tree locations:**

Psychotherapy F04.754.539

## Mesothelin

An ANTIGEN present on the surface of certain types of normal cells and overexpressed in several human tumors, including OVARIAN CANCER.

### **Tree locations:**

Antigens, Surface D23.050.301.609  
GPI-Linked Proteins D12.776.395.550.448.550  
D12.776.543.484.500.588  
D12.776.543.550.418.550  
Intracellular Signaling Peptides and Proteins D12.644.360.410  
D12.776.476.410

## Metallothionein 3

A metallothionein that exhibits neuroinhibitory activity and is involved in the repair of neuronal damage.

### **Tree locations:**

Metallothionein D12.776.556.670.500  
Nerve Tissue Proteins D12.776.631.540

## Microaggression

Brief verbal, behavioral, or situational indignities that communicate hostile, derogatory, or negative slights or insults. It 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](http://dictionary.apa.org/microaggression) 12/30/2020)

### **Tree locations:**

Aggression F01.145.813.045.500

## 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.

### **Tree locations:**

Secretory Vesicles A11.284.430.214.190.875.190.880.810.500

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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.

**Tree locations:**

Myocardial Infarction C14.280.647.500.328  
C14.907.585.500.422  
C23.550.513.355.750.328  
C23.550.717.489.750.328

### **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](http://www.cochrane.org/CD008449) access 12/28/2020)

**Tree locations:**

Physical Therapy Modalities E02.831.535.680

### **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.

**Tree locations:**

Mitochondrial Membrane Transport Proteins D12.776.543.585.475.594  
D12.776.575.750.594  
Multiprotein Complexes D05.500.469  
Protein Translocation Systems D05.500.890.563

### **Molybdenum Cofactors**

Enzyme co-factors that contain MOLYBDENUM. They play an essential role in a variety of cellular REDOX reactions.

**Tree locations:**

Coenzymes D08.211.532

### **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.

**Tree locations:**

Nucleic Acid-Based Vaccines D12.776.828.868.228.500  
D20.215.894.865.450.500  
D23.050.865.450.500

### **MTOR Inhibitors**

Agents that inhibit the activity of the mechanistic target of RAPAMYCIN, which is a protein kinase.

**Tree locations:**

Antineoplastic Agents D27.505.954.248.538  
Immunosuppressive Agents D27.505.696.477.656.625  
Protein Kinase Inhibitors D27.505.519.389.755.750

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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.

**Tree locations:**

Crystallins D12.776.306.366.888  
Oxidoreductases Acting on CH-NH Group Donors D08.811.682.662.436

### **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.

**Tree locations:**

Multidrug Resistance-Associated Proteins D12.776.157.530.100.304.750  
D12.776.157.530.450.074.500.500.750  
D12.776.543.585.100.304.750  
D12.776.543.585.450.074.500.500.750

### **Myofascial Release Therapy**

A massage therapy which focuses on releasing MUSCLE TIGHTNESS often used to relieve muscular pain from myofascial tissues (e.g., MYOFASCIAL PAIN SYNDROME).

**Tree locations:**

Massage E02.190.599.750.750.750  
E02.779.867.880.750.750  
E02.831.535.867.880.750.750

### **Nanoparticle Drug Delivery System**

Engineered NANOPARTICLES with unique physiochemical properties which improve drug BIOAVAILABILITY and site specific drug delivery.

**Tree locations:**

Drug Carriers D26.255.260.750  
E02.319.300.380.800

### **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).

**AN: specify geographic location if pertinent**

**Tree locations:**

Residence Characteristics N01.224.791.775  
N06.850.505.400.800.775  
Social Environment I01.880.853.500.525

## 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.

*FX: Systems Biology*

*FX: Polypharmacology*

### **Tree locations:**

Drug Discovery E05.295.500

## 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.

### **Tree locations:**

Nerve Tissue Proteins D12.776.631.611

RNA-Binding Proteins D12.776.157.725.441

D12.776.664.962.448

## Neuroinflammatory Diseases

Diseases characterized by inflammation of the nervous tissue.

**AN: general or unspecified; prefer specifics**

### **Tree locations:**

Inflammation C23.550.470.544

Nervous System Diseases C10.586

## Nitrate Transporters

Plant proteins that participate in the active uptake of NITRATE from soil and its transport throughout the plant.

### **Tree locations:**

Anion Transport Proteins D12.776.157.530.450.074.375

D12.776.543.585.450.074.375

Plant Proteins D12.776.765.519

## 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.

### **Tree locations:**

Axial Spondyloarthritis C05.116.900.853.625.800.744.250

C05.550.069.340.250

C05.550.114.865.800.744.250

## Nonagenarians

Persons 90 years of age and older.

### **Tree locations:**

Aged, 80 and over M01.060.116.100.080.625

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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.

**Tree locations:**

Walking G11.427.410.568.900.813  
G11.427.410.698.277.937.250  
I03.350.937.250  
I03.450.642.845.940.500

### **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.

**Tree locations:**

Intranuclear Space A11.284.430.106.279.345.574

### **Nuclear Speckles**

Membraneless intranucleoplasmic subcompartments or nuclear domains in which proteins related to RNA metabolism (e.g., SPLICING FACTORS) are dynamically localized.

**Tree locations:**

Nuclear Bodies A11.284.430.106.279.345.574.813

### **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.

**Tree locations:**

Vaccines, Synthetic D12.776.828.868.228  
D20.215.894.865.450  
D23.050.865.450

### **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.

**Tree locations:**

Nuclear Proteins D12.776.660.694

### **Octogenarians**

Persons 80 to 89 years of age.

**Tree locations:**

Aged, 80 and over M01.060.116.100.080.750



## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

*FX: Opsonin Proteins*

**Tree locations:**

Antibody-Dependent Cell Cytotoxicity G12.287.070.500  
Phagocytosis G04.417.350.772  
G09.188.665.750  
G12.450.564.809.750  
G12.688.750

### Organocopper Compounds

Organic compounds that contain COPPER as an integral part on the molecule.

**Tree locations:**

Coordination Complexes D02.257.133  
Organometallic Compounds D02.691.319

### Orthorexia Nervosa

An eating disorder that is characterized by the pathological obsession with HEALTHY EATING.

*FX: Diet, Healthy*

**Tree locations:**

Feeding and Eating Disorders F03.400.860

### Orycteropodidae

An order of placental mammals in the superorder AFROTHERIA found in Africa. It has single species Orycteropus afer.

**Tree locations:**

Afrotheria B01.050.150.900.649.313.250.125

### Ostracism

An extreme form of rejection in which one is excluded and ignored in the presence of others.

**Tree locations:**

Social Isolation F01.145.813.781.500  
I01.880.853.748.595

### 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.

**Tree locations:**

Delivery of Health Care N05.300.565  
Diagnosis E01.505  
Health Services N02.421.562

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Overtreatment

Remedial treatment or preventive procedures of a disease which is done too frequently or excessively often from OVERDIAGNOSIS.

**Tree locations:**

Medical Overuse N02.421.380.450.188  
N05.300.150.395.450.188

### 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.

**Tree locations:**

Metabolism G03.707

### 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.

**Tree locations:**

Nuclear Bodies A11.284.430.106.279.345.574.844

### 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.

**Tree locations:**

Anticholesteremic Agents D27.505.519.186.071.202.685  
D27.505.954.557.500.202.685  
Serine Proteinase Inhibitors D27.505.519.389.745.800.506

### 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.

**Tree locations:**

Social Discrimination F01.145.813.629.594  
Social Perception F02.463.593.752.250

### 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.

**AN: coordinate with specific infection**

*FX: Chronic Disease*

**Tree locations:**

Disease Attributes C23.550.291.902  
Infections C01.645

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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 through rapid reversible mutations in the glpK gene through phase variation.

**Tree locations:**

Genetic Variation G05.365.693

### 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.

**Tree locations:**

Gram-Negative Bacteria B03.440.619

### Plant Cone

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.

**Tree locations:**

Plant Components, Aerial A18.024.625

### 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.

**Tree locations:**

Plant Development G07.345.625.937  
G15.589.500

### 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).

**Tree locations:**

Periodicals as Topic L01.178.682.829.678.500

### 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.

**AN: do not confuse entry term STRIATE CORTEX with CORPUS STRIATUM (basal ganglia)**

**Tree locations:**

Visual Cortex A08.186.211.200.885.287.500.571.735.500  
A08.186.211.200.885.287.500.814.953.500

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Cytoplasmic Ribonucleoprotein Granules A11.284.430.214.190.500.780.500  
A11.284.430.214.190.875.190.190.384.500

### 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.

**Tree locations:**

Mitochondrial Proteins D12.776.575.844

### 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)

**Tree locations:**

Bereavement F01.470.142.555

### 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 posttranslational modifications of partner proteins (e.g., SUMOYLATION) which in turn lead to modulation of various biological processes.

**Tree locations:**

Nuclear Bodies A11.284.430.106.279.345.574.875

### 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).

**AN: distinguish from GAMMA-GLUTAMYLTRANSPEPTIDASE which is involved with glutathione metabolism**

**Tree locations:**

Transglutaminases D08.811.913.050.200.800.650

### Protein Kinase D2

A SERINE-THREONINE PROTEIN KINASE that is activated in response to OXIDATIVE STRESS.

**Tree locations:**

Protein Serine-Threonine Kinases D08.811.913.696.620.682.700.750  
D12.776.476.563.750

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Proto-Oncogene Proteins D12.776.624.664.700.166  
Receptors, Angiotensin D12.776.543.750.695.047.313  
D12.776.543.750.750.130.375

### 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.

**Tree locations:**

Cadherins D12.776.395.550.200.200.750  
D12.776.543.550.200.200.750  
D23.050.301.350.200.750

### Psychogenic Nonepileptic Seizures

Seizures caused by psychological factors without electrophysiological epileptic changes.

**Tree locations:**

Seizures C10.597.742.357  
C23.888.592.742.357

### 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.

**Tree locations:**

Emergency Services, Psychiatric F04.408.525.500

### 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.

**Tree locations:**

rab GTP-Binding Proteins D08.811.277.040.330.300.400.400.600  
D12.776.157.325.515.400.600  
D12.776.476.338.400.400.600

### 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.

**Tree locations:**

Fibrosis C23.550.355.663  
Radiation Injuries C26.733.685  
G01.750.748.500.685  
N06.850.460.350.850.500.222  
N06.850.810.300.360.222

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Rapid On-site Evaluation

A rapid laboratory service provided onsite at clinical settings (e.g., DIAGNOSTIC IMAGING suites) typically for cytomorphologic features on FINE-NEEDLE ASPIRATION.

*FX: Endoscopic Ultrasound-Guided Fine Needle Aspiration*

**Tree locations:**

Point-of-Care Testing N04.590.874.500.750

### 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.

**Tree locations:**

Cell Adhesion Molecules D23.050.301.350.663  
Cell Adhesion Molecules, Neuronal D12.776.395.550.200.250.760  
Extracellular Matrix Proteins D12.776.860.300.784  
Serine Endopeptidases D08.811.277.656.300.760.753  
D08.811.277.656.959.350.753

### 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.

**Tree locations:**

Bodily Secretions A12.200.617  
Body Fluids A12.207.876

### Reynoutria

Genus of flowering herbaceous perennial plants and vines in the family Polygonaceae. Some sources include plants formerly classified under Fallopia here under Reynoutria.

**Tree locations:**

Polygonaceae B01.875.800.575.912.250.825.569

### Ribosomal Protein L3

It is a ribosomal protein that plays a crucial role in protein synthesis.

**Tree locations:**

Ribosomal Proteins D12.776.835.965

### 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.

**Tree locations:**

Ribosomal Proteins D12.776.835.982

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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).

**Tree locations:**

Sports I03.450.642.845.608

### **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.

**Tree locations:**

Salvia B01.875.800.575.912.250.583.520.922.375

### **Schizophrenia, Treatment-Resistant**

A subset of schizophrenia with an inadequate response in target symptoms following treatment with two or more ANTIPSYCHOTICS.

**Tree locations:**

Schizophrenia F03.700.750.650

### **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.

**Tree locations:**

Fluids and Secretions A12.895  
Metabolome G03.500.500

### **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)

**Tree locations:**

Mindfulness F02.463.551.500  
Self Concept F01.752.747.792.813

### **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.

**Tree locations:**

Cellular Senescence G04.043.445  
G07.345.124.130.445

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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 SENESENCE-ASSOCIATED SECRETORY PHENOTYPE.

**Tree locations:**

Therapeutic Uses D27.505.954.803

### Sentiment Analysis

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

**Tree locations:**

Artificial Intelligence G17.035.250.750  
L01.224.050.375.815  
Data Mining L01.313.500.750.280.199.750  
L01.470.625.750

### 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.

**Tree locations:**

Epidemiologic Factors N06.850.490.844

### Serine-Threonine Kinase 3

An intracellular-signaling kinase that plays a role in regulating APOPTOSIS.

**Tree locations:**

Protein Serine-Threonine Kinases D08.811.913.696.620.682.700.897  
D12.776.476.563.897

### 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 SENESENCE and ageing-related pathology. In general it consists of six mostly TELOMERE-BINDING PROTEINS (POT1, RAP1, TIN2, TPP1, TRF1, and TRF2).

**Tree locations:**

Multiprotein Complexes D05.500.918  
Nucleoproteins D12.776.664.981  
Telomere A11.284.430.106.279.345.190.160.845.500  
G05.360.160.845.500  
Telomere-Binding Proteins D12.776.260.735.625  
D12.776.660.235.700.625

### Sleep Quality

Satisfaction with the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon awakening.

*FX: Polysomnography*

**Tree locations:**

Sleep Hygiene F02.830.855.734.500



## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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). .

**Tree locations:**

Attention Deficit and Disruptive Behavior Disorders F03.625.094.650

### 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>).

**Tree locations:**

Social Integration F01.829.401.694.500  
N03.055.750.500

### 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>).

**Tree locations:**

Social Isolation I01.880.853.748.877

### Social Status

The relative prestige, authority, and privilege of an individual or group.

**Tree locations:**

Social Structure I01.880.761.500

### 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 among its constituent individuals, groups, institutions, customs, and mores. (<https://dictionary.apa.org/social-structure>)

**Tree locations:**

Sociology I01.880.761

### 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/PMC7179070/>)

*FX: Vulnerable Populations*

**Tree locations:**

Sociological Factors I01.880.853.919

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### 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.

**Tree locations:**

Sociological Factors I01.880.853.965

### Sound Recordings

The storing of sound signals on various media such as cylinders, analog discs, digital discs, tapes, and wires.[LCSH, 10/27/2020]

**Tree locations:**

Audiovisual Aids J01.897.280.500.793

L01.178.820.090.793

Copying Processes L01.280.785

### 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.

**Tree locations:**

Cytoplasmic Ribonucleoprotein Granules A11.284.430.214.190.500.780.750

A11.284.430.214.190.875.190.190.384.750

### 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.

**Tree locations:**

Mesenchymal Stem Cells A11.329.830.500.500

A11.872.590.500.500

### 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. (<https://www.cdc.gov/chronicdisease/programs-impact/sdoh.htm>)

**Tree locations:**

Racism F01.145.813.550.500.500

F01.145.813.629.625.500

I01.880.735.820.500.500.500

### TEA Domain Transcription Factors

A family of transcription factors that share a conserved TEA DNA binding domain.

**Tree locations:**

DNA-Binding Proteins D12.776.260.733

Transcription Factors D12.776.930.882

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Technology Addiction

The inability to overcome a desire to have contact with and use technology and electronic devices.

**Tree locations:**

Behavior, Addictive F01.145.527.100.120.875

### Tenrecidae

A placental mammal family in superorder Afrotheria.

**Tree locations:**

Afrotheria B01.050.150.900.649.313.250.875

### 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.

**Tree locations:**

Elapid Venoms D20.888.850.325.600  
D23.946.833.850.325.600

Reptilian Proteins D12.776.831.622

### 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.

**Tree locations:**

Blood Coagulation Disorders C15.378.100.876  
Inflammation C23.550.470.895  
Thrombosis C14.907.355.830.749

### 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.

**AN: do not confuse with tafazzin/TAZ protein**

**Tree locations:**

Adaptor Proteins, Signal Transducing D12.644.360.024.469  
D12.776.157.057.437  
D12.776.476.024.484

### 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)

**AN: TRANSLATIONAL RESEARCH, BIOMEDICAL is also available**

*FX: National Center for Advancing Translational Sciences (U.S.)*

**Tree locations:**

Biological Science Disciplines H01.158.945

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **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 RECESSIVE CEROID LIPOFUSCINOSIS, NEURONAL, 2; AND SPINOCEREBELLAR ATAXIA, AUTOSOMAL RECESSIVE 7.

**Tree locations:**

Aminopeptidases	D08.811.277.656.350.100.877
Dipeptidyl-Peptidases and Tripeptidyl-Peptidases	D08.811.277.656.350.350.843
Serine Proteases	D08.811.277.656.959.780

### **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.

**Tree locations:**

Cell Physiological Phenomena	G04.917
Immune System Phenomena	G12.888

### **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.

**Tree locations:**

Intracellular Signaling Peptides and Proteins	D12.644.360.963
	D12.776.476.941
Neoplasm Proteins	D12.776.624.720

### **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.

**Tree locations:**

Glucuronosyltransferase	D08.811.913.400.450.480.750
-------------------------	-----------------------------

### **Umbilical Cord Clamping**

Method of placing clamps on the UMBILICAL CORD before cutting after birth.

**Tree locations:**

Delivery, Obstetric	E04.520.252.980
---------------------	-----------------

### **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)

**Tree locations:**

Aircraft	J01.937.285.100.550
----------	---------------------

## **New MeSH Headings with Scope Notes For MeSH Year-> 2022**

### **Uremic Toxins**

Biological solutes retained and accumulated due to kidney impairment that contribute to uremia/chronic kidney disease.

**Tree locations:**

Toxins, Biological D23.946.710

### **Urogenital Diseases**

Pathological processes of the URINARY TRACT and the reproductive system (GENITALIA).

**AN: general or unspecified; MALE UROGENITAL DISEASES and FEMALE UROGENITAL DISEASES are available**

**Tree locations:**

No Data Available

### **Vaccination Hesitancy**

Delay in acceptance of vaccination despite availability.

**Tree locations:**

Vaccination Refusal F01.100.150.750.750.500.500  
F01.145.488.887.750.500.500  
I01.880.604.473.650.968.500.500  
N03.706.437.650.875.500.500  
N05.300.150.800.750.500.500

### **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.

**Tree locations:**

Investigative Techniques E05.952

### **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.

**Tree locations:**

Vaccine Development E05.952.500

### **Vascular Depression**

Late-life depression associated with clinical or MRI defined cerebrovascular pathology.

**Tree locations:**

Cerebrovascular Disorders C10.228.140.300.794  
C14.907.253.896  
Depressive Disorder F03.600.300.887

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### Vermilingua

A placental mammalian suborder of anteaters. For spiny anteater see TACHYGLOSSIDAE; and for scaly anteaters, PANGOLINS.

**Tree locations:**

Xenarthra B01.050.150.900.649.313.999.475

### Vestibular System

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

**Tree locations:**

Sense Organs A09.923

### Video-Assisted Techniques and Procedures

Techniques or procedures performed with visualization via video transmission.

**Tree locations:**

Investigative Techniques E05.956

### Viperin Protein

A highly conserved IFN-inducible protein with a wide range of antiviral activities by binding to the VIRAL N PROTEIN.

**Tree locations:**

Antiviral Restriction Factors D12.776.066.500

### 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 stomatitis virus. Use of these types of vectors are useful in developing NEUTRALIZATION TESTS by enabling infection of almost universal set of host cells.

**Tree locations:**

Genetic Techniques E05.393.880

Microbiological Techniques E01.370.225.875.960

E05.200.875.960

### Weight Cycling

Repeated cycles of weight loss followed by weight gain.

*FX: Body Weight Maintenance*

*FX: Body-Weight Trajectory*

**Tree locations:**

Weight Gain C23.888.144.243.926.750

G07.345.249.314.120.200.926.750

Weight Loss C23.888.144.243.963.750

G07.345.249.314.120.200.963.500

## New MeSH Headings with Scope Notes For MeSH Year-> 2022

### **Xenotropic and Polytopic 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.

**Tree locations:**

Receptors, G-Protein-Coupled D12.776.543.750.695.977  
Receptors, Virus D12.776.543.750.830.925

### **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 co-activators for TEAD TRANSCRIPTION FACTORS.

*FX: Transcriptional Coactivator with PDZ-Binding Motif Proteins*

**Tree locations:**

Adaptor Proteins, Signal Transducing D12.644.360.024.750  
D12.776.157.057.750  
D12.776.476.024.750

### **Zn-Alpha-2-Glycoprotein**

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

**Tree locations:**

Adipokines D06.472.699.042.875  
D12.644.276.024.875  
D12.644.548.011.875  
D12.776.467.024.875  
D23.529.024.875  
Glycoproteins D09.400.430.984  
D12.776.395.985