

* Links in the document are active

MeSH (Medical Subject Headings)

MeSH (Medical Subject Headings) is a controlled dictionary of subject headings used for indexing, cataloging and retrieving information in biology, medicine, health and related sciences.

MeSH is a living organism that is constantly evolving. Work on its support, reflection of the latest terminology, improvement of structure, tracking of interdisciplinary connections is regularly conducted.

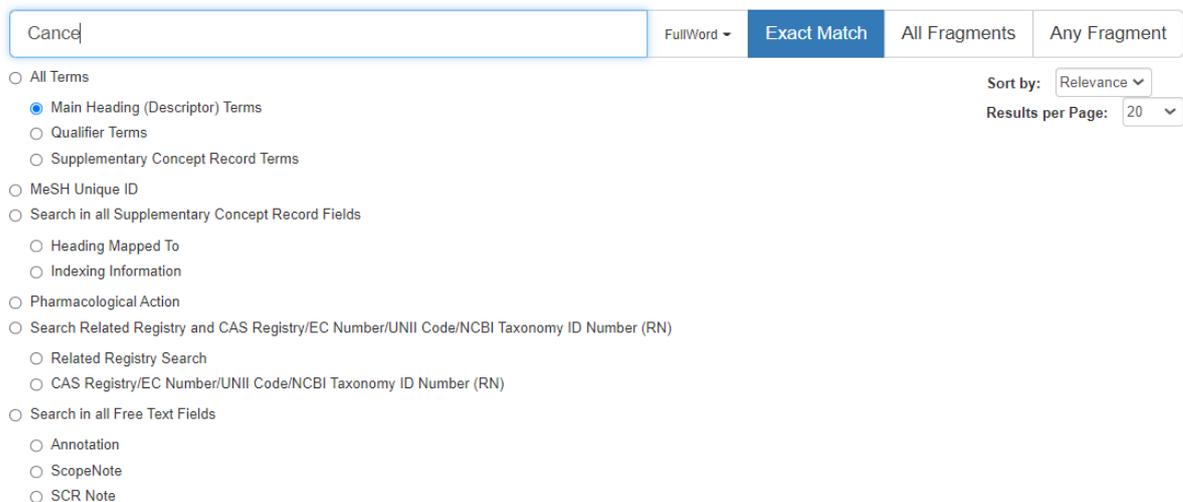
The design of the keywords must meet the following criteria:

1. Keywords should represent the basic concepts of the article.
2. Keywords should be descriptive.
3. Keywords should not repeat the title of the article.
4. Keywords are presented in alphabetical order.
5. Keywords should reflect a collective understanding of the topic.
6. Reuse keywords throughout the article or annotation, it is allowed to use synonyms of keywords throughout the text of the article.
7. The recommended number of keywords is 5-12.
8. Translation of keywords in MeSH format in the appropriate sequence in Ukrainian and Russian.

II Check your keywords to see if they match format of MeSH

<https://meshb.nlm.nih.gov/search>

We search for the keyword of your work, for example "**Cance**»(Error in word)



The screenshot shows the MeSH search interface. The search box contains the text "Cance". The search options are set to "Exact Match", "All Fragments", and "Any Fragment". The search results are sorted by "Relevance" and show "Results per Page: 20". The search results are empty, and a message is displayed: "No results for Cance in Main Heading Terms".

As you can see, no results were found for this word

We search for a keyword for your work, such as "Cancer" (no error)

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Neoplasms MeSH Descriptor Data 2022

Details	Qualifiers	MeSH Tree Structures	Concepts
MeSH Heading		Neoplasms	
Tree Number(s)		C04	
Unique ID		D009369	
RDF Unique Identifier		http://id.nlm.nih.gov/mesh/D009369	
Annotation		general; prefer specifics; familial: consider also NEOPLASTIC SYNDROMES , HEREDITARY ; metastatic cancer of unknown origin: index NEOPLASM METASTASIS	
Scope Note		New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the properties of invasion and metastasis, compared to benign neoplasms.	
Entry Version		NEOPL	
Entry Term(s)		Benign Neoplasm Benign Neoplasms Cancer Malignancy Malignant Neoplasm Malignant Neoplasms Neoplasia Neoplasm Neoplasms, Benign Tumor Tumors	
Consider Also		consider also terms at CANCER , CARCINO- , ONCO- , and TUMOR	
Public MeSH Note		/diagnosis was NEOPLASM DIAGNOSIS 1964-65 ; /etiology was NEOPLASM ETIOLOGY 1964-65 ; /immunology was NEOPLASM IMMUNOLOGY 1964-65 ; /radiotherapy was NEOPLASM RADIOTHERAPY 1964-65 ; /therapy was NEOPLASM THERAPY 1964-65 ; NEOPLASM STATISTICS was heading 1964-65; CARCINOGENESIS was heading 1977	
History Note		/diagnosis was NEOPLASM DIAGNOSIS 1964-65 ; /etiology was NEOPLASM ETIOLOGY 1964-65 ; /immunology was NEOPLASM IMMUNOLOGY 1964-65 ; /radiotherapy was NEOPLASM RADIOTHERAPY 1964-65 ; /therapy was NEOPLASM THERAPY 1964-65 ; NEOPLASM STATISTICS was heading 1964-65; CARCINOGENESIS was heading 1977	
Entry Combination		secondary:Neoplasm Metastasis	
Date Established		1966/01/01	
Date of Entry		1999/01/01	
Revision Date		2021/06/30	

page delivered in 0.223s

This term is synonymous with the official MeSH Heading "Neoplasms"

Accordingly, in your article you write "Neoplasms".

If you want to specify a more specific MeSH Heading or you want to find similar ones, you can view "MeSH Tree Structures" by opening additional "+" positions for more accurate selection.

Neoplasms MeSH Descriptor Data 2022

Details	Qualifiers	MeSH Tree Structures	Concepts
Neoplasms [C04]			
Cysts [C04.182] +			
Hamartoma [C04.445] +			
Neoplasms by Histologic Type [C04.55] +			
Neoplasms by Site [C04.588] +			
Neoplasms, Experimental [C04.619] +			
Carcinoma 256, Walker [C04.619.045]			
Carcinoma, Brown-Pearce [C04.619.124]			
Carcinoma, Ehrlich Tumor [C04.619.169]			
Carcinoma, Krebs 2 [C04.619.214]			
Carcinoma, Lewis Lung [C04.619.230]			
Leukemia, Experimental [C04.619.531] +			
Avian Leukosis [C04.619.531.216]			
Leukemia L1210 [C04.619.531.594]			
Leukemia L5178 [C04.619.531.602]			
Leukemia P388 [C04.619.531.782]			
Liver Neoplasms, Experimental [C04.619.540]			
Mammary Neoplasms, Experimental [C04.619.590]			
Melanoma, Experimental [C04.619.600]			
Sarcoma, Experimental [C04.619.857] +			
Neoplasms, Hormone-Dependent [C04.626]			
Neoplasms, Multiple Primary [C04.651] +			
Hamartoma Syndrome, Multiple [C04.651.435] +			
Multiple Endocrine Neoplasia [C04.651.600] +			
Tuberous Sclerosis [C04.651.800]			
Neoplasms, Post-Traumatic [C04.666]			
Neoplasms, Radiation-Induced [C04.682] +			
Neoplasms, Second Primary [C04.692]			
Neoplastic Processes [C04.697] +			
Neoplastic Syndromes, Hereditary [C04.700] +			
Paraneoplastic Syndromes [C04.730] +			
Precancerous Conditions [C04.834] +			
Pregnancy Complications, Neoplastic [C04.850] +			

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II Search for MeSH keywords for your article

We open the site <https://www.ncbi.nlm.nih.gov/search/>

We search for a keyword for your work, such as "Cancer"

The screenshot shows the National Library of Medicine search interface. At the top, there is a search bar with the text "Cancer" and a "Search" button. Below the search bar, there is a "COVID-19 Information" banner with a "CLOSE" button. The main content area displays "Results found in 33 databases" and is divided into three columns: Literature, Genes, and Proteins. Each column contains a list of databases with their respective result counts. The "MeSH" and "PubMed" entries in the Literature column are highlighted with red boxes.

Category	Database	Count
Literature	Bookshelf	128,709
	MeSH	397
	NLM Catalog	51,635
	PubMed	4,466,696
	PubMed Central	2,223,169
Genes	Gene	61,656
	GEO DataSets	1,098,361
	GEO Profiles	15,791,203
	HomoloGene	227
	PopSet	1,433
Proteins	Conserved Domains	1,338
	Identical Protein Groups	26,959
	Protein	5,921,665
	Protein Family Models	4,342
	Structure	9,694

1. MeSH for keyword selection

2. PubMed to search for literature on this topic with regular keywords (see APA-style document)

* Links in the document are active

The keyword "Cancer" is associated with 397 keywords in MeSH format, so you choose the best option for you, such as "Cancer Vaccines"

Full - Send to: ▾

Cancer Vaccines

Vaccines or candidate vaccines designed to prevent or treat cancer. Vaccines are produced using the patient's own whole tumor cells as the source of antigens, or using tumor-specific antigens, often recombinantly produced.
Year introduced: 1997

PubMed search builder options
[Subheadings:](#)

1

- administration and dosage
- adverse effects
- analysis
- antagonists and inhibitors
- biosynthesis
- blood
- chemical synthesis
- chemistry
- classification
- economics

- etiology
- genetics
- history
- immunology
- isolation and purification
- metabolism
- microbiology
- organization and administration
- pharmacokinetics

- pharmacology
- physiology
- radiation effects
- standards
- statistics and numerical data
- supply and distribution
- therapeutic use
- toxicity
- virology

Restrict to MeSH Major Topic.
 Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): D20.215.894.200
MeSH Unique ID: D019496
Entry Terms:

- Vaccines, Cancer
- Vaccines, Tumor
- Vaccines, Neoplasm
- Tumor Vaccines
- Tumor Vaccine
- Vaccine, Tumor
- Cancer Vaccine
- Vaccine, Cancer
- Neoplasm Vaccines

2

Previous Indexing:

- [Vaccines \(1971-1996\)](#)

[All MeSH Categories](#)
[Chemicals and Drugs Category](#)
[Complex Mixtures](#)
[Biological Products](#)
[Vaccines](#)
Cancer Vaccines

3

PubMed Search Builder

▾

[YouTube](#) Tutorial

Related information

PubMed

PubMed - Major Topic

Clinical Queries

NLM MeSH Browser

PubChem Compound

Recent Activity

[Turn Off](#) [Clear](#)

- Cancer Vaccines MeSH
- Colitis-Associated Neoplasms MeSH
- Hereditary Breast and Ovarian Cancer Syndrome MeSH
- Cancer (397) MeSH
- Neoplasms MeSH

[See more...](#)

You can watch:

1. Subheadings
2. Synonyms
3. Hierarchical structure ("tree") of the keyword in MeSH format

Your opportunities:

I Choose a keyword in MeSH format and match your keywords to MeSH

II Search by keyword in MeSH literature format:

1. Add to the search this keyword in MeSH format, click "Add to search builder"
2. Add a subheading of this keyword to the search in MeSH format, select the subheading and click "Add to search builder"
3. Choose a search method:
 - "AND" are both keywords in MeSH format
 - "OR" one or another keyword in MeSH format
 - "NOT" is the first keyword in MeSH format

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4 Search for documents with these keywords in MeSH format is possible using the "Search PubMed" function

Full ▾ Send to: ▾

Cancer Vaccines

Vaccines or candidate vaccines designed to prevent or treat cancer. Vaccines are produced using the patient's own whole tumor cells as the source of antigens, or using tumor-specific antigens, often recombinantly produced.
Year introduced: 1997

PubMed search builder options
[Subheadings:](#)

<input type="checkbox"/> administration and dosage	<input type="checkbox"/> etiology	<input type="checkbox"/> pharmacology
<input type="checkbox"/> adverse effects	<input type="checkbox"/> genetics	<input type="checkbox"/> physiology
<input type="checkbox"/> analysis	<input type="checkbox"/> history	<input type="checkbox"/> radiation effects
<input type="checkbox"/> antagonists and inhibitors	<input type="checkbox"/> immunology	<input type="checkbox"/> standards
<input type="checkbox"/> biosynthesis	<input type="checkbox"/> isolation and purification	<input type="checkbox"/> statistics and numerical data
<input type="checkbox"/> blood	<input type="checkbox"/> metabolism	<input type="checkbox"/> supply and distribution
<input type="checkbox"/> chemical synthesis	<input type="checkbox"/> microbiology	<input type="checkbox"/> therapeutic use
<input checked="" type="checkbox"/> chemistry	<input type="checkbox"/> organization and administration	<input type="checkbox"/> toxicity
<input type="checkbox"/> classification	<input type="checkbox"/> pharmacokinetics	<input type="checkbox"/> virology
<input type="checkbox"/> economics		

PubMed Search Builder

("Cancer Vaccines"[Mesh]) AND "Cancer Vaccines/chemistry"[Mesh]

Add to search builder AND ▾

Search PubMed AND

OR

NOT PubMed Tutorial

Related information

PubMed

PubMed - Major Topic

Clinical Queries

NLM MeSH Browser

PubChem Compound

You can edit the search results of documents with these keywords in the MeSH format "Search PubMed" with various filters:

The screenshot shows the PubMed search results page for the query: ("Cancer Vaccines"[Mesh]) AND "Cancer Vaccines/chemistry"[Mesh]. The page displays 587 results. A red box highlights the filter sidebar on the left, which includes sections for:

- RESULTS BY YEAR: A bar chart showing search results from 1995 to 2021.
- TEXT AVAILABILITY: Abstract, Free full text, Full text.
- ARTICLE ATTRIBUTE: Associated data.
- ARTICLE TYPE: Books and Documents, Clinical Trial, Meta-Analysis, Randomized Controlled Trial, Review, Systematic Review.
- PUBLICATION DATE: 1 year, 5 years, 10 years, Custom Range.
- Buttons: Additional filters, Reset all filters.

The search results list includes the following entries:

1. Generation of triacyl lipopeptide-modified glycoproteins by metabolic glycoengineering as the neoantigen to boost anti-tumor immune response. Zhao Y, Li S, Lv J, Liu Y, Chen Y, Liu Y, Chen X, Li J, Qin X, Wang X, Shi J, Shi Y, Xiang R. *Theranostics*. 2021 May 25;11(15):7425-7438. doi: 10.7150/thno.60211. eCollection 2021. PMID: 34158858. Free PMC article.
2. Design of a multi-epitope vaccine against cervical cancer using immunoinformatics approaches. Sanami S, Azadegan-Dehkordi F, Rafeian-Kopaei M, Salehi M, Ghasemi-Dehnoo M, Mahoodi M, Alizadeh M, Bagheri N. *Sci Rep*. 2021 Jun 11;11(1):12397. doi: 10.1038/s41598-021-91997-4. PMID: 34117331. Free PMC article.
3. Co-delivery of anionic epitope/CpG vaccine and IDO inhibitor by self-assembled cationic liposomes for combination melanoma immunotherapy. Su Q, Wang C, Song H, Zhang C, Liu J, Huang P, Zhang Y, Zhang J, Wang W. *J Mater Chem B*. 2021 May 12;9(18):3892-3899. doi: 10.1039/d1tb00256b. PMID: 33928989.
4. Cancer Vaccines, Adjuvants, and Delivery Systems. Paston SJ, Brentville VA, Symonds P, Durrant LG. *Front Immunol*. 2021 Mar 30;12:627932. doi: 10.3389/fimmu.2021.627932. eCollection 2021. PMID: 33859638. Free PMC article. Review.
5. Nanoparticle-mediated tumor vaccines for personalized therapy: preparing tumor antigens *in vivo* or *ex vivo*? Li Q, Li J, Song S, Chen W, Shen X, Li S, Xing D. *J Mater Chem B*. 2021 Mar 17;9(10):2352-2366. doi: 10.1039/d1tb02915g. PMID: 33659970. Review.
6. Synthesis and immunological evaluation of the unnatural β -linked mucin-1 Thomsen-Friedenreich conjugate. Wu X, McFall-Boegeman H, Rashidjahanabad Z, Liu K, Pett C, Yu J, Schorlemer M, Ramadan S, Behren S, Westerlind U, Huang X. *Org Biomol Chem*. 2021 Mar 21;19(11):2448-2455. doi: 10.1039/d1ob00007a. Epub 2021 Mar 1. PMID: 33645601.

Additional results include: Synthesis and Evaluation of Liposomal Anti-GM3 Cancer Vaccine Candidates.