



# Session 1. Introduction

Information science and scientific methodology  
Degree in Pharmacy 2017-18

# The course



Block I: Theory

Block II: Seminars

Block III: Computer practices

Block IV: Face-to-face tutorials

Evaluation: Theoretical exam (50%) + workbook (40%) + conceptual map (10%)

Contact: [Antonio.Vidal-Infer@uv.es](mailto:Antonio.Vidal-Infer@uv.es)

Attention:

School of Medicine. Department of History of Science and Information Science. Tuesday 10.00-13.00

School of Pharmacy, office 156, by appointment by email



An introduction will be made to the sources of scientific information, defining the main documentary typologies, describing their informational utility, and how they can be accessed.



Procedures will be set out to identify and select the desired information in scientific information delivery systems.



Identifying which are the main health science databases.

And the most appropriate search strategies and interrogation techniques to identify documents that meet the information needs of the user.



Also, some of the existing tools and procedures will be presented to manage and evaluate the selected documents of interest.

The following will offer a multiple view of the aspects that constitute scientific methodology.





## BLOCK I: THEORY

8 hours

Session 1. Introduction to Documentation and Scientific Methodology

Session 2. Main sources of information

- Concept of information source
- Main sources of information

Session 3. Bibliographic searches

- Databases: general characteristics and forms of access.
- Bibliographic searches: search strategies.

Session 4. Main databases

- Main multidisciplinary databases
- Main health science databases
- Other databases



### Session 5. The documentary summary

This is a description in brief and precise terms of the substance of a document.

### Session 6. Preparation of bibliographies

- Characteristics and constituent elements
- Presentation styles of bibliographic references
- Vancouver system or style
- Software for the management of bibliographic references.

### Session 7. Internet and scientific literature

- Definition and concept of open access to information.
- Open access to scientific information in health.



BLOCK II: SEMINARS (2 hour sessions each seminar)

SEMINAR 1. UV resources.

SEMINAR 2. Bibliographic managers: Zotero

SEMINAR 3. The scientific article

SEMINAR 4. Terminology

SEMINAR 5. Pharmaceutical industry

BLOCK III: COMPUTER PRACTICES (sessions 2.30)

Searches in multidisciplinary databases and in health sciences.

Session Inf1: Searches in multidisciplinary databases.

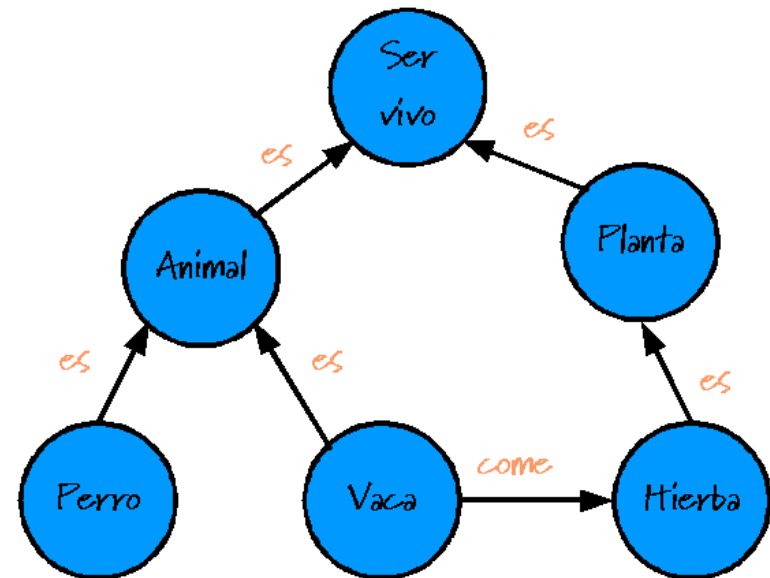
Session Inf2: Searches in health science databases.



CONCEPTUAL MAP <http://cmap.ihmc.us/download>

Also called 'organisational chart'. It is a technique used for graphically representing knowledge.

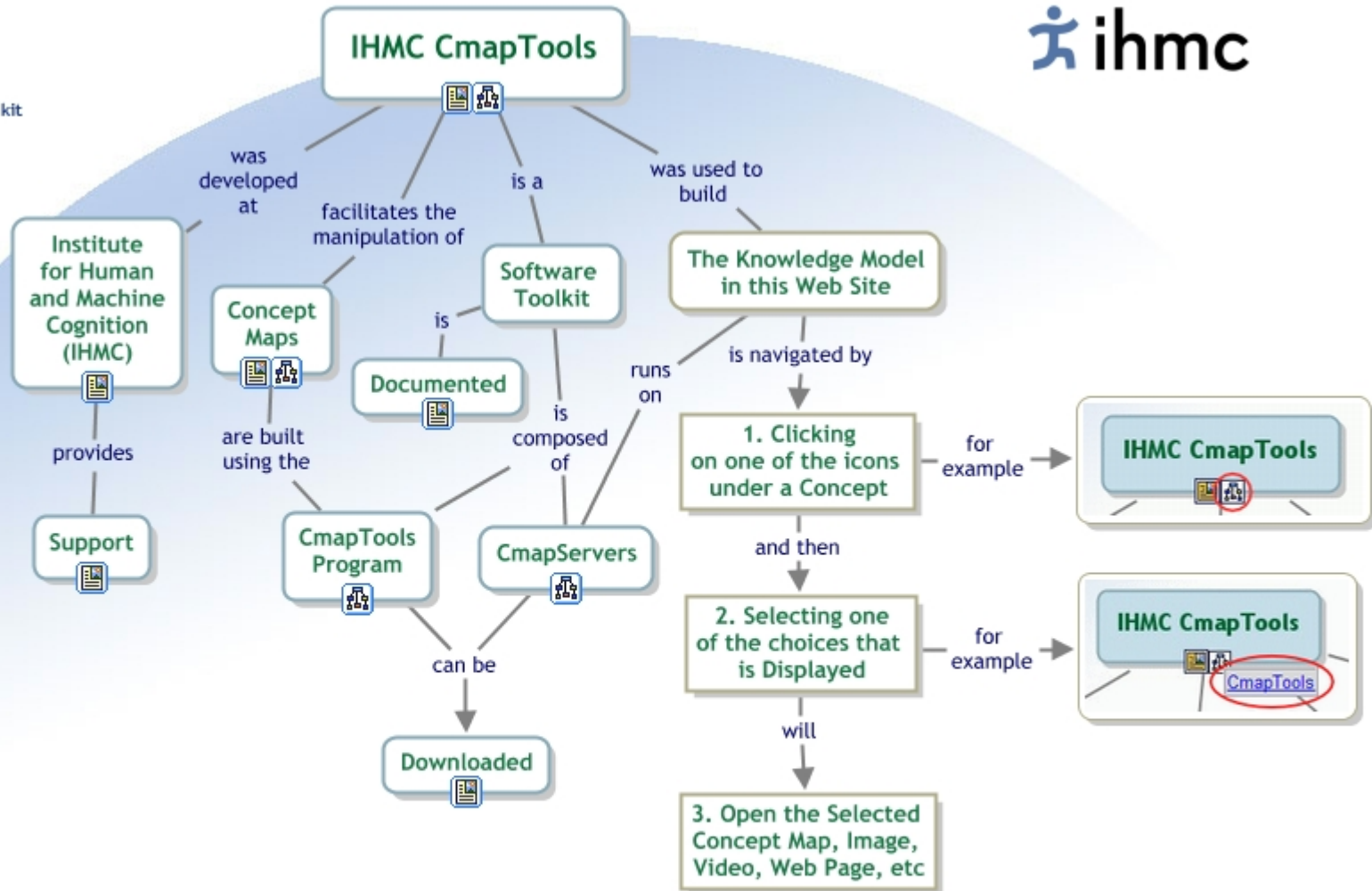
A conceptual map is a network of concepts. In the network, nodes represent concepts, and link the relationships between concepts.





The IHMC CmapTools software empowers users to construct, navigate, share, and criticize knowledge models represented as Concept Maps

Welcome to the Web Site of



In general, concept maps are diagrams that indicate relationships between concepts, or between words we use to represent concepts.

# The course



## BIBLIOGRAPHY: TEACHING GUIDE

Materials for the accomplishment of the tasks: in the folders of the respective practical sessions in the Virtual Classroom.



# **CYCLE OF INFORMATION**

# EL CICLO DE LA PRODUCCIÓN CIENTÍFICA

NUEVA  
PUBLICACIÓN



ÁMBITO  
TEÓRICO

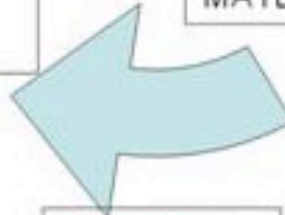
IV. Fase Interpretativa  
ANÁLISIS

I. Fase Conceptual  
FORMULACIÓN HIPÓTESIS  
Y OBJETIVOS



III. Fase Empírica  
OBTENCIÓN Y  
MANEJO DE DATOS

II. Fase Planificación  
MATERIAL Y MÉTODOS

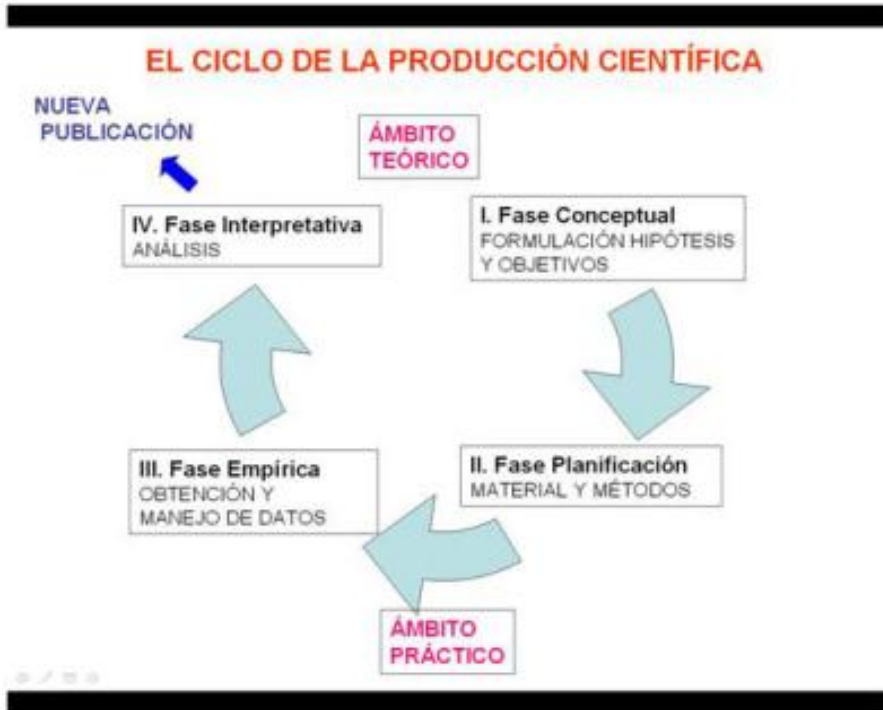


ÁMBITO  
PRÁCTICO

Information is a cyclical phenomenon:  
a researcher produces information to start his or her work, which, in turn, will give rise to new information that enters the transfer cycle.



Scientific production is both an end product (scientific knowledge) and raw material for new research.



Those who investigate start from PREVIOUS KNOWLEDGE and OBSERVATION OF REALITY to ask new questions.



The APPROACH to a RESEARCH PROBLEM requires a precise definition, as well as showing (in a bibliography) the lack of knowledge on that subject.



For this, it is necessary to carry out an information search, proceeding from previous investigations.

Which tells us the state of the issue on the subject that we propose to address, as well as the methodologies with which similar problems have been addressed.



## EL CICLO DE LA PRODUCCIÓN CIENTÍFICA



The information obtained will be used by the scientist

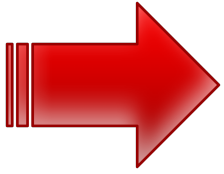
- to design the RESEARCH,
- establish hypotheses and objectives
- Establish methodological work procedures



Leading to the production of OWN DATA.

The OWN DATA gives way to processes of interpretation and contrast with the information of OTHER DATA AND HYPOTHESES on the subject, obtained from the corresponding bibliographic search.

From the interpretation of the results and discussion, conclusions are generated, all of which enable the preparation and publication of the new SCIENTIFIC WORK that will increase knowledge.



The CYCLE OF SCIENTIFIC PRODUCTION refers to the process by which new knowledge is produced, based on knowledge already published.

The new ideas developed will be valid to explain phenomenon studied once they are published for use by the scientific community (DISSEMINATION).

There is no research without publication.

Publication is a research quality filter.

# EL CICLO DE LA PRODUCCIÓN CIENTÍFICA

NUEVA  
PUBLICACIÓN



ÁMBITO  
TEÓRICO

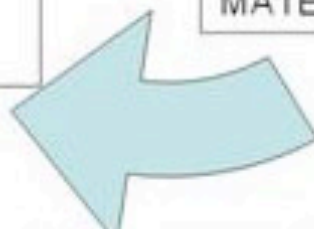
**IV. Fase Interpretativa**  
ANÁLISIS

**I. Fase Conceptual**  
FORMULACIÓN HIPÓTESIS  
Y OBJETIVOS



**III. Fase Empírica**  
OBTENCIÓN Y  
MANEJO DE DATOS

**II. Fase Planificación**  
MATERIAL Y MÉTODOS



ÁMBITO  
PRÁCTICO



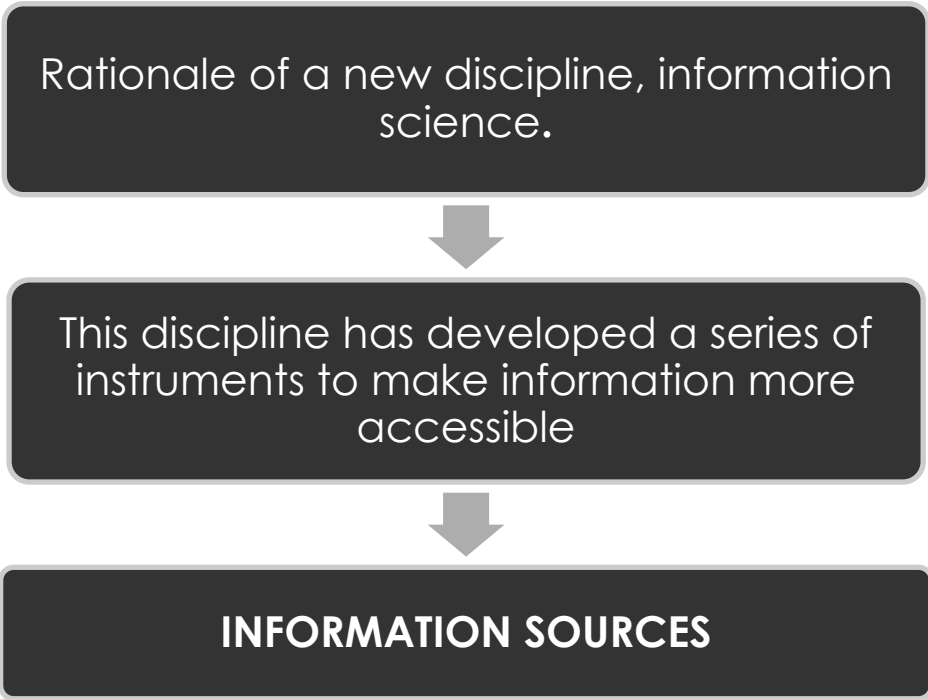
# Session 2. Main information sources

Information science and scientific methodology  
Degree in Pharmacy 2017-18



# 1. Concept of information source

We can broadly define an information source as any object or subject that enables us to satisfy a demand or information need.



# 1.1. Classification of information sources



## PRIMARY INFORMATION SOURCES

Documents transmitting original information (do not lead to any other document and have not been subjected to any kind of documentary analysis).

For the ALA Glossary, the primary sources are the original and authentic documents that treat a particular subject and are used in the preparation of a later work.

The main documentary typologies would be:

Books.

Serial publications (newspapers, magazines, series and official publications),  
Grey literature (doctoral theses, research projects, conference proceedings, etc.)

Reference works.

Standards and patents.



# 1.1. Classification of information sources

## SOURCES OF SECONDARY INFORMATION

Contain data and information concerning primary sources (refer to primary documents), therefore, they are the product of the analysis of primary sources.

These include:

Catalogues.

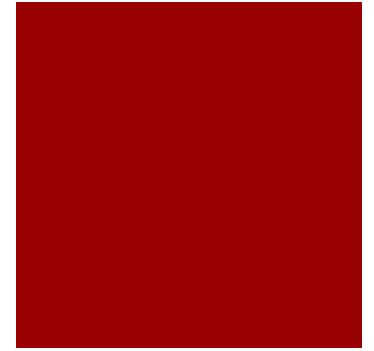
Bibliographies.

Summaries or summary bulletins.

Indices.

Databases.





# 1.1. Classification of information sources.

## SOURCES OF TERTIARY INFORMATION

Documents that systematically show sources of secondary information:

Bibliographies of bibliographies.

Guides to reference works.

Database directories.

Meta-search engines.

## 2. Main information sources

# Main information sources

**Library catalogues**



**E-Books**



**Reference Works**



**Grey Literature**



## 2.1. Library catalogues

- ▣ **Catalogues**

- ▣ **Catalogues are sources of information that contain an inventory or description of existing documents in an information unit. Although their main function is the location of documents, thanks to the bibliographic data that accompany the description of the document, and they can serve the same purposes as bibliographies.**















































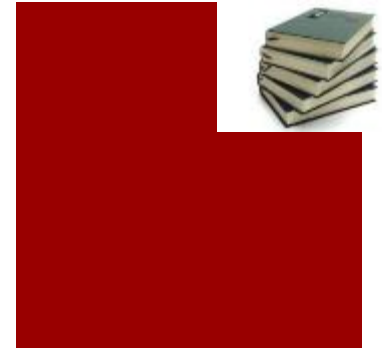
## 2.2. E-Book

### Recursos de información

#### Libros electrónicos

Cómo acceder a los recursos desde casa Como suscribir nuevos recursos Uso responsable de los recursos Dudas y sugerencias Instalación del Cliente ICA Citrix Formación sobre recursos

Libros electrónicos					
		<a href="#">Atlas de Anatomía Humana interactivo 3D PRIMAL Pictures</a> <b>AVISO:</b> Al finalizar la consulta pinche en el botón <b>LOG OFF</b>			
		<a href="#">Atlas de Anatomía Humana : Fundamentos de Anatomía Humana (en castellano)</a> <b>AVISO:</b> Al finalizar la consulta pinche en el botón <b>LOG OFF</b>			
		<a href="#">Atlas de Anatomia Humana interactivo 3D PRIMAL Pictures: DENTISTRY</a> <b>AVISO:</b> Al finalizar la consulta pinche en el botón <b>LOG OFF</b>			
		<a href="#">Chadwyck-Healey Literature Collections</a>			
		<a href="#">E-libro: 60.000 libros de todas las disciplinas</a>	<a href="#">Problemas para ver los libros ...?</a>	<a href="#">Restricciones de uso</a>	 
		<a href="#">Early English Books Online (EEBO)</a>			
		<a href="#">Études et essais sur la Renaissance</a>			
		<a href="#">Harrison's Principles of Internal Medicine : Harrison's on line</a>			
		<a href="#">Harrison Online en español</a>			
		<a href="#">Netlibrary:</a> libros electrónicos de Ciencias, Medicina, Psicología, Ciencias Sociales, Humanidades, Ciencias del Deporte y Educación			 
		<a href="#">Patrologia Latina</a>			
		<a href="#">Safari Books Online: Business Library</a> : libros electrónicos de Empresa y ciencias afines			
		<a href="#">Safari Books Online: Tecnical Library</a> : libros electrónicos de Informática			
		<a href="#">Science Direct Ebooks:</a> libros y enciclopedias electrónicas de todas las materias			
		<a href="#">Springer Ebook Collection</a> <sup>NUEVO</sup>			
		<a href="#">Textes de la Renaissance: Collections Honoré Champion</a>			



## 2.3. Reference works



Reference works are collections of knowledge about a certain subject that are not designed for continuous reading but for partial and detailed consultation. They provide immediate and timely information.

The main types of reference works are:

Dictionaries.

Encyclopedias.

Sources of biographical information.

## 2.4. Grey literature



From the definitions given for the concept of grey literature, there seems to be unanimous agreement on the 1978 York Seminar, which speaks of grey literature as a means of communication that escapes commercial publishing channels.

Grey literature consists of a set of primary documents of very different typologies, but which share common features, such as:

No or little diffusion.

Heterogeneous formats, often precarious.

No bibliographic control, much more so when legislation does not consider these documents as liable for legal deposit.



## 2.4. Grey literature



Any type of document of which a small number of copies are reproduced and distributed outside the commercial circuits of edition and distribution - and for this reason they are sometimes difficult to identify and obtain. Also known by other names, such as semi-published, ephemeral, fugitive, informal, invisible, unconventional, or non-permanent literature.



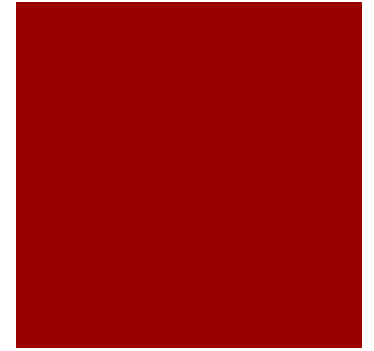
Grey literature may include:

Proceedings of conferences (not published or accessible in the publishing market).

PhD theses (not published or accessible in the publishing market).

Scientific, technical, economic, and social projects and reports.

Other documents.



## 2.4. Grey literature.

Other grey literature may include:

- Technical standards and recommendations.

- Unpublished translations.

- Some commercial non-published serials (such as those of scientific societies).

- Some official documents of restricted, or very limited scope.

- Advertising technical documentation.

- Laboratory reports.

- Market studies, etc.



## 2.4. Grey literature



The main characteristics of grey literature are the following:

It is not commercially published and distributed, and does not conform to the norms of bibliographic control (e.g. ISSN, ISBN).

It is not intended to be widespread: generally printed with a limited number of copies and intended for a particular group of people.

Access is difficult due to its scarce availability, and it is a type of literature that is not usually collected in secondary sources of information.

Its presentation format is sometimes poorly standardised, and sometimes without the minimum data necessary for correct identification.

Its cost of production is usually low, and poor quality materials are used.

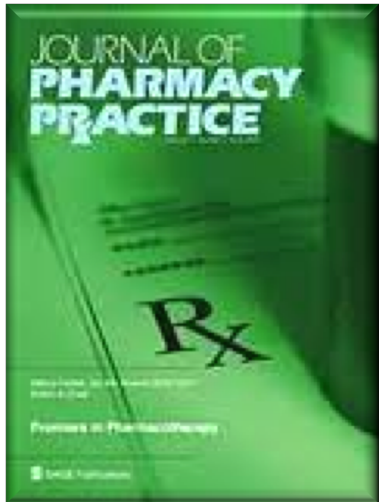
# Main information sources

## **Serial publications**





## 2.5. Serial publications



UNE 50-113-91 / 2 establishes that a serial publication is a type of publication, whether printed or not, edited in sequentially numbered serial numbers or volumes (with numbers or chronological indications) destined to continue indefinitely, regardless of their frequency .

UNE-50-113-91 / 2 establishes that journals deal with one or more specific subjects and contain general information or scientific or technical information.

Magazines are serial publications that have a frequency equal to or greater than once week and less than once a year.

## 2.5. Serial publications



The magazines present the following parts or elements:

### A) Identification elements:

Title of the journal (kept in each issue, although the title may change throughout the life of the journal).

Numbering (volume and fascicle or number).

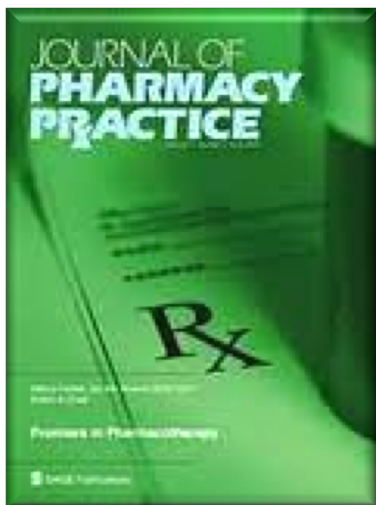
Codes (ISSN, Coden) serve to identify the journal.

Legal deposit.

Editor.

Editorial committee.

Scientific committee





## 2.5. Serial publications

Text or body of the journal:

Articles published in the journal. Constitute the body and main element.

In addition it is possible to find other contents:

- Book reviews.

- Important article translations.

- News, congresses, conferences to be held.

- Programmes of activities.

- Information on the next issue.

- ....



## 2.5. Serial publications

Types of medical articles / health sciences.

Originals. Articles that present a research process in a systematic and orderly way.

Clinical notes. Communication of one or more clinical cases that present an exceptional character, a new contribution to the pathophysiology of a disease, or the description of a new semiology or new technical procedures, family, or epidemiological study.

Review articles. Update article or state of the matter on a certain subject in which an expert of the area analyses, describes, and synthesizes the state of the research in the same.

Special articles. Articles that are not part of the theme or content of the journal, but which are of interest to potential readers.

Editorials. Brief articles signed by the editor, or a member of the editorial committee, expressing opinions on a topic or other articles or publications of the journal.

Letters to the editor. Short article used to express an opinion on other works published in the journal, or scientific information of interest to the readers of the same.





## 2.5. Serial publications

Parts of the text of an article.

### Introduction

Genesis, motive, objective and hypothesis of work.

Problem stated, briefly and accurately.

Limits of research (chronological, geographical etc.) and justification.

Commented relation of the most important bibliography.

List and description of the sources used.

State of the question (previous research on subject).

Importance of the proposed topic.

Scientific and social impact of work.

### Material and method

Detailed explanation of the experimental plan or observation.

Accurate identification of all methods, techniques, and equipment that enables research to be reproduced.

Description of the selection criteria of the sample.

Definition of the variables to be investigated.

Description of the material used.

Description of the procedure followed for data collection.

Definition of abbreviations, symbols, and statistical terms used.

## 2.5. Serial publications

Parts of the text of an article.

### Results

Report following a logical sequence of the most relevant findings (following the description in the material and method section and responding to the problem posed in the introduction).

Inclusion of tables and figures with the most relevant results.

### Discussion

Interpretation and critical analysis of the results obtained.

Relationship with observations of other related studies.

The novel and most important aspects of the study are highlighted.

Conclusions (within the discussion, or as separate epigraph).

Brief phrases that summarise the main findings of the research.





## 2.5. Serial publications



Every new topic receives a first approximation in periodicals, where basic approaches are established, hypotheses are formulated, and conclusions are drawn. In addition, periodicals enable currents of opinion and thought to be followed.

These periodicals are characterised by:

The abundant number available.

Frequent use in scientific and academic fields.

Most accepted vehicle for transmitting information, especially in areas such as health sciences.

Enable a dynamic, agile, and rapid communication (immediacy in availability).

## 2.5. Serial publications



Other outstanding functions include:

Control/certification of quality in research results (correct, accurate, and novel).

Medium of transmission and public dissemination of knowledge.

Medium for quickly learning latest developments.

Intellectual recognition for the author.

Legal copyright protection.

Mechanism for evaluation of research activity.

Knowledge archiving if accessibility is guaranteed.



## 2.5. Periodical or serial publications



Some of the main characteristics of periodicals are the following:

They are publications that appear successively, usually at regular intervals. Duration is indefinite (maintaining form and structure).

Authorship is collective.

Usually have an editorial committee formed by specialists in the subject that mark the editorial line and characteristics of the publication.

Theme is very varied within a common title.

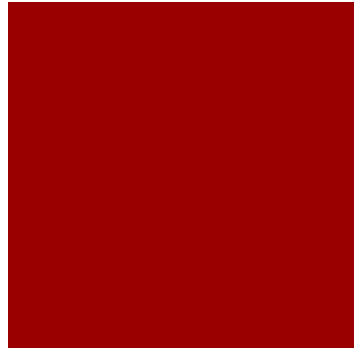
High frequency enables information to be disseminated quickly - spreading up-to-date information is an essential characteristic.

Characterised by aging or early obsolescence.

Newly published information is cumulative, and does not replace previous information.

However, some publications are uncontrolled by ignorance - or because they are small institutions that publish their own publications and choose not to have an ISSN.





## 2.5. Serial publications

ISSN is controlled by the ISSN International Centre, based in Paris, which supervises all national centres worldwide and assigns ISSN numbers to international serial publications and to countries where a clearing house has not yet been established.

Similar to ISBN monographs, serial publications are easily identified through ISSN (International Standard Serial Number) if they are available.





# Session 3. Bibliographic searches

Information science and scientific methodology  
Degree in Pharmacy 2017-18

# 1. Databases: general features and access



Access to primary information sources is mainly through:

Bibliographic databases.

A database is a set of information structured in registers and stored on a computer readable electronic medium. Each record constitutes an independent unit of information that can be structured into different fields or types of data. In a bibliographic or documentary database, each record corresponds to a document.

# 1. Databases: general features and access



One of the important features in relation to access to a database is the cost of such access. We can find:

Databases with free access to all contents (e.g. Pubmed/Medline).  
Databases of free access to a part of the contents and by subscription (payment) to the entire database, or to other functionalities offered by the producer/distributor of the database (e.g. Spanish Medical Index).  
Payment databases, which can only be accessed by contracting the service (e.g. Embase). Given the high cost of subscriptions, they are usually consulted through universities or research institutions.



# 1. Databases: general features and access

Database → formed by records → different fields that are repeated in each of the records.

Main fields:

Author

Title

Source

Language

Descriptors

Summary, etc.

Each field is assigned a unique 'field tag'. These tags vary from one database to another, but usually consist of an abbreviation of the field name composed of two characters. For example: au for the author field, ti for the title field, etc.



## 2. Bibliographic searches: search strategies

### METHODOLOGY FOR BIBLIOGRAPHIC SEARCH STRATEGY

- Define information needs.
- Select the appropriate databases to perform the search.
- Choose the concepts of the query.
- Translate concepts to search terms.
- Set the search equation.
- Conduct the search, visualise, and evaluate the results.



## 2. Bibliographic searches: search strategies

### A) DEFINING INFORMATION NEEDS

Purpose of the search.

Language.

Scientific level.

Types of documents desired.

Period of time covered.

Number of references needed.

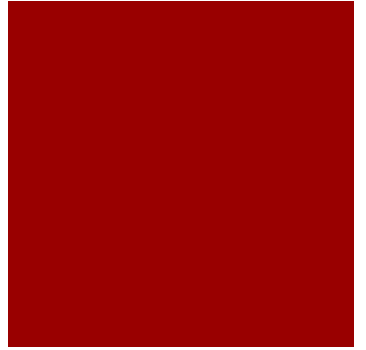
Need for accuracy or completeness.

Comprehensive search

Precise search.



## 2. Bibliographic searches: search strategies



### B) SELECT DATABASES

Thematic coverage.

Geographic coverage.

Language.

Retrospective coverage.

Existence or not of controlled vocabulary.

Availability of auxiliary documentation.

Cost of search.

Knowledge of interrogation programme.

Possibility of accessing full text.

Data provided by bibliographic records.

## 2. Bibliographic searches: search strategies

### C) CHOOSING CONCEPTS

Significant concepts included in an information demand should be sought.

Example: 'articles on quality of care and satisfaction of women in treatment for drug dependence in Asturias.'

Concepts:

Drug addiction

Alcoholism

Heroin addiction etc.

Quality of care

Patient satisfaction

Women



## 2. Bibliographic searches: search strategies

### D) TRANSLATE CONCEPTS TO TERMS OF SEARCH

When selecting the search terms that define our information needs, there are two options:

Select natural language terms and perform the search as free text (title fields, abstract, and keywords).

Choose terms from a controlled vocabulary, such as the MeSH-Medical Subject Headings from the Medline database (field descriptors).



## 2. Bibliographic searches: search strategies

D) TRANSLATE CONCEPTS TO SEARCH TERMS (I)  
NATURAL LANGUAGE - FREE TEXT

In the translation of concepts to appropriate terms, a concept does not always coincide with a term:

Andalusia:

Seville, Cadiz, Granada, Malaga, Cordoba ...

Education in Psychobiology:

Education: elementary education, secondary education, university studies, training ...

Psychobiology, neurobiology



## 2. Bibliographic searches: search strategies

D) TRANSLATE CONCEPTS TO SEARCH TERMS (I)  
NATURAL LANGUAGE - FREE TEXT

Complexity of searches in free text:

Find and group all synonyms:

Penitentiary establishment, jail, prison

Perform truncations.

Clean noise due to:

Polysemias (e.g., dependency, bank, heroin)

Spelling variants (e.g., marihuana, marijuana,)

Minimum common divisor: selection of essential words:

'Approach to the concept of family support as a variable in the treatment of alcoholism'

Essential words:

Alcoholism

Family

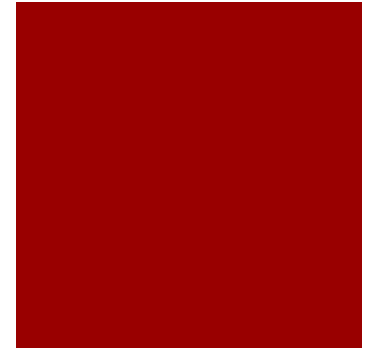


## 2. Bibliographic searches: search strategies

### D) TRANSLATE THE CONCEPTS TO SEARCH TERMS (II) SEARCHES WITH CONTROLLED TERMS

Some databases incorporate a thesaurus.

Thesauri are lists of unambiguous terms that synthesize the subject matter of the documents. These are controlled or standardised terms, that is, they are always used to describe the same subject matter, regardless of what terms (use of other synonyms, spelling, or grammatical variants, technical expressions, etc.). They are assigned by documentalists and enable the person searching the database to accurately locate documents that deal with a particular topic.





## 2. Bibliographic searches: search strategies

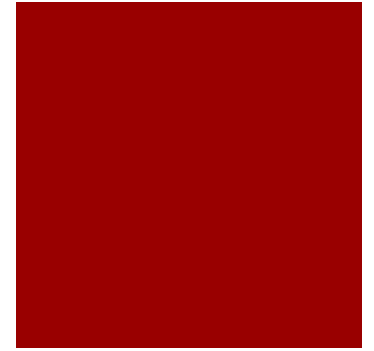
D) TRANSLATE CONCEPTS TO SEARCH TERMS (II)  
SEARCHES WITH CONTROLLED TERMS

Possible processes to perform:

Extend the search to other more generic or specific concepts.

Extend the search to related terms.

Expand the terms



## 2. Bibliographic searches: search strategies

D) TRANSLATE THE CONCEPTS TO SEARCH TERMS (II)  
SEARCHES WITH CONTROLLED TERMS

Extend the search to more generic or specific concepts, or to related terms:

Abuse drugs

Stimulants

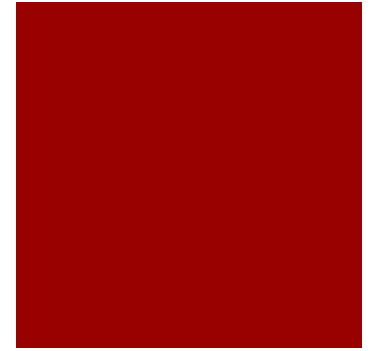
Cocaine

\* Crack

'Cell membrane' related to:

Lipid membrane

Nuclear membrane



## 2. Bibliographic searches: search strategies

### D) TRANSLATE CONCEPTS TO SEARCH TERMS (II) SEARCHES WITH CONTROLLED TERMS

Expanding terms:

Bacteria

Gram negative bacteria

Rickettsias

Rickettsia prowazekii

Rickettsia tsutsugamushi

Rickettsia typhi



## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

In an interrogation language, operators are responsible for expressing the relationships between the terms that define the information needs of the user. They may be:

- Logical or boolean operators.
- Syntax or proximity operators.
- Comparison operators and limiters.
- Truncation operators and wildcards.



## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

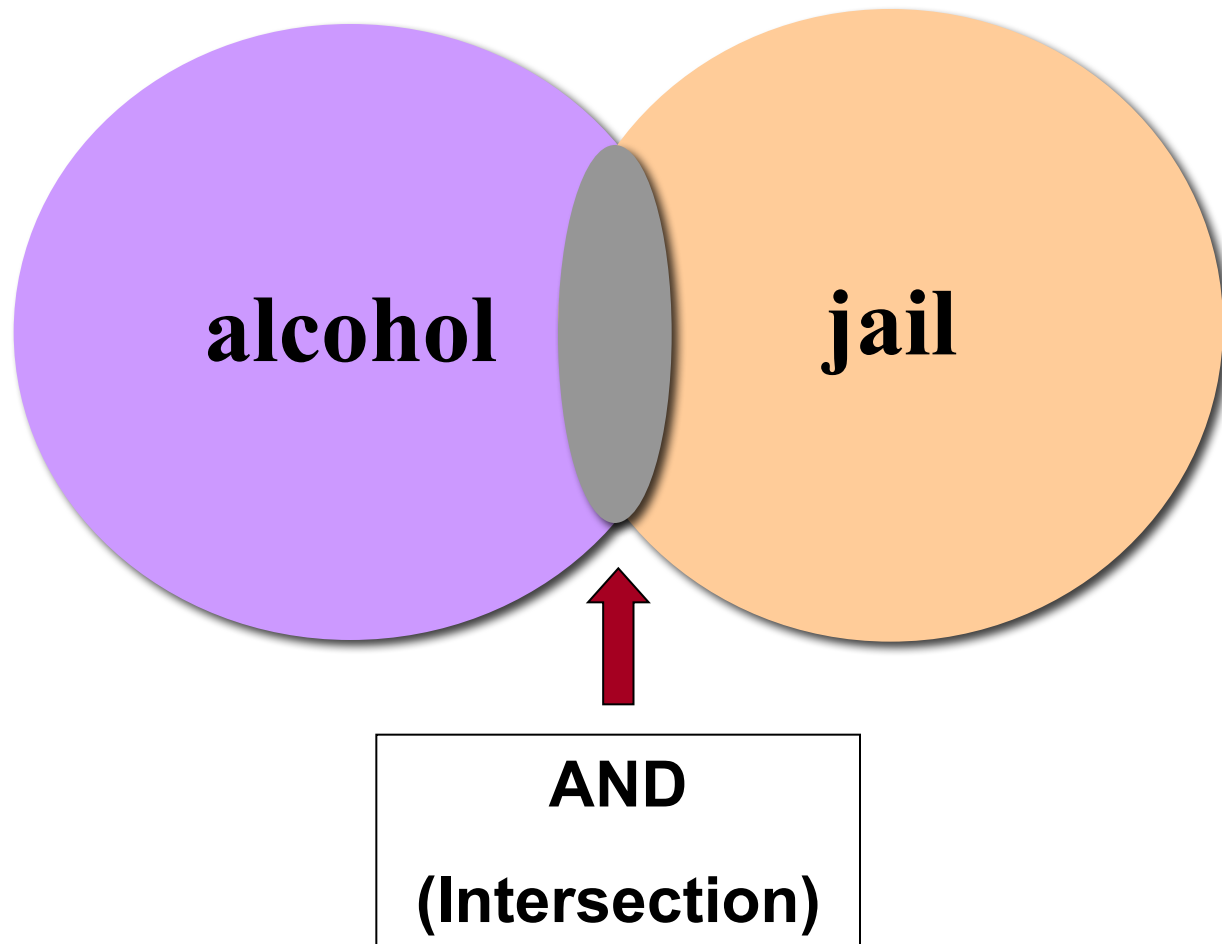
Logical or boolean operators.

Boolean operators (Y / AND, O / OR, NO / NOT) enable combining several terms in a search, and expanding or reducing the search result.

**Logical or boolean operators.**

## 2. Bibliographic searches: search strategies

Logical or boolean operators.



## 2. Bibliographic searches: search strategies

Logical or boolean operators.

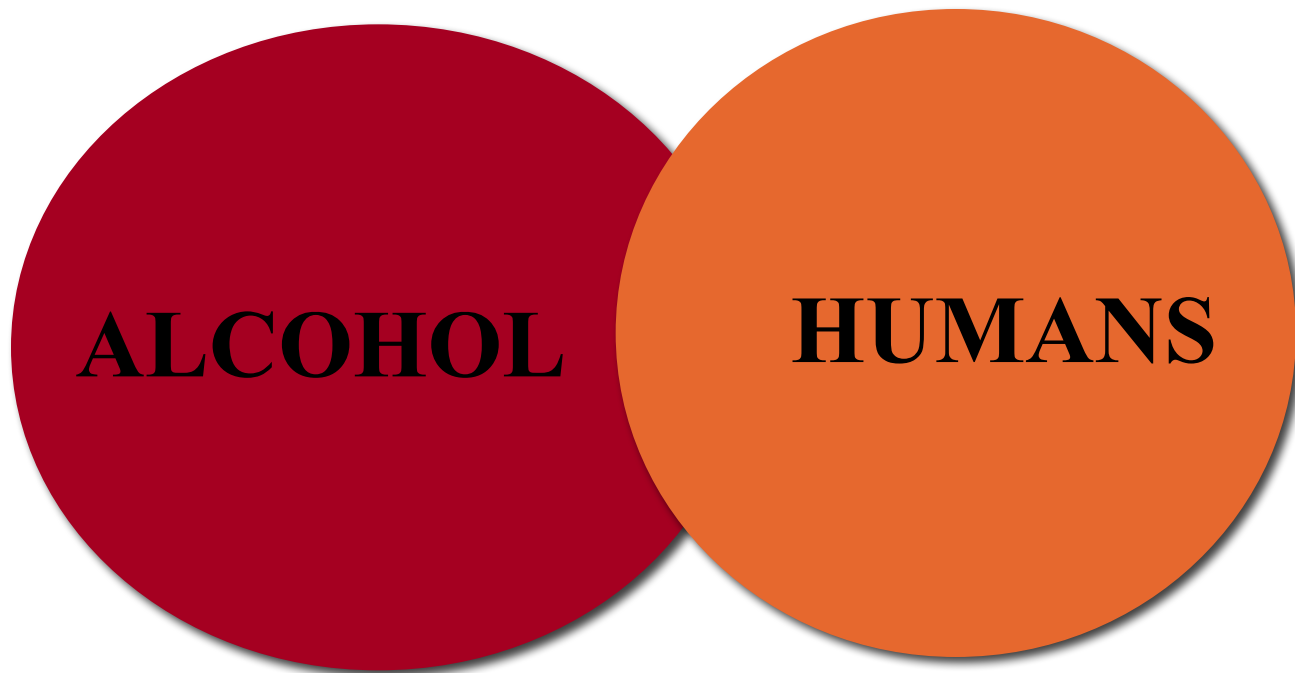
**TOBACCO**

**ALCOHOL**

**OR**  
**(union)**

## 2. Bibliographic searches: search strategies

Logical or boolean operators.



**NOT**  
**(Exclusion)**



## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

Syntax or proximity operators enable specifying the proximity or adjacency of the search terms → appear together or separated by a certain number of words. They vary according to the databases. Signs most frequently used: W, N (NEAR), WITH, ADJ Examples:  
Cardiovascular NEAR Nursing  
Helpers WITH libraries  
2W Libraries Helpers

**Syntax or proximity operators**

## 2. Bibliographic searches: search strategies



Adjacency: one term next to another (ADJ). Presence of terms at a distance of at most 'n' words (W). Presence of two terms located at a fixed fixed distance (P). Presence within the same sentence (NEAR). Two terms in the same field regardless of the order (WITH).

Syntax or proximity operators

## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

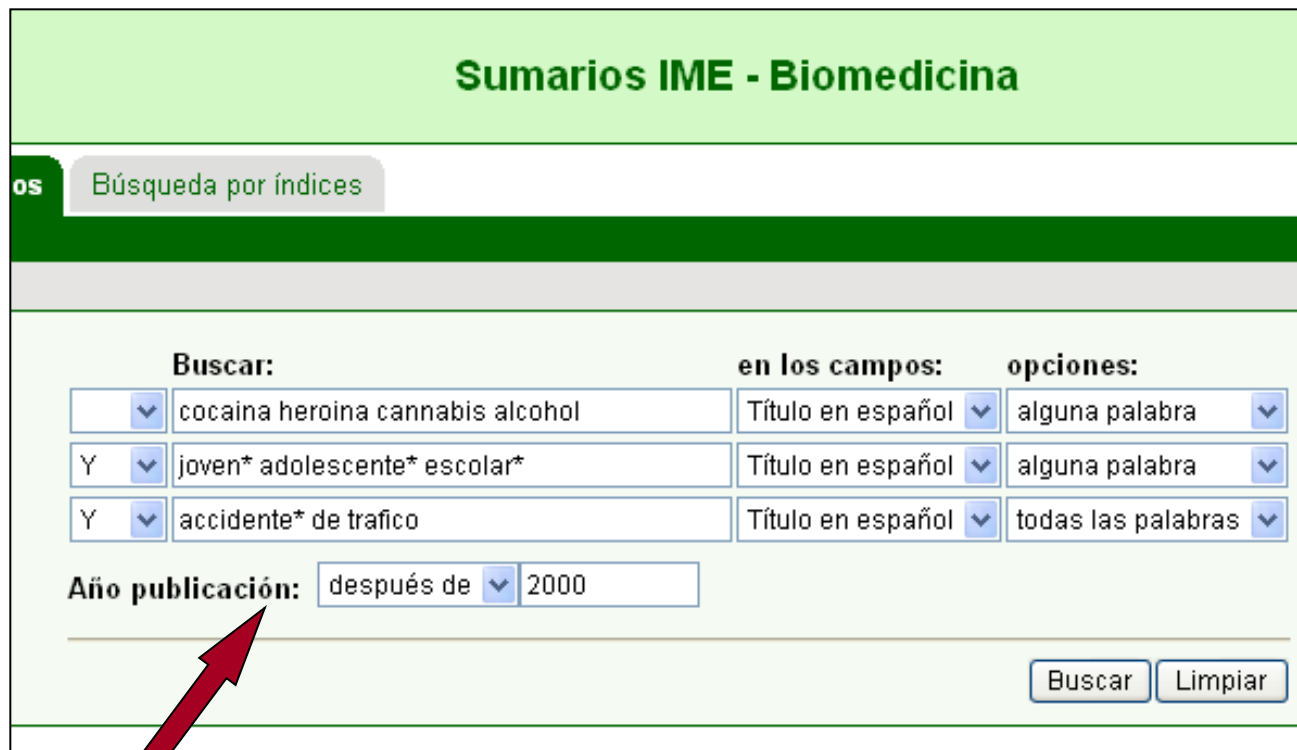
Comparison operators and limiters: specify search range and set limits for it. These limits can be both numeric and alphabetic, with operators corresponding to forms of the type 'greater than', 'less than or equal to'. They are mainly used in documents that may contain numerical data: - documentary typologies - dates of publication - language of documents.

**Comparison operators and limiters**

## 2. Bibliographic searches: search strategies

### Comparison operators and limiters

Greater than, less than, equal to, less than or equal to.




The screenshot shows a search interface for 'Sumarios IME - Biomedicina'. The search criteria are as follows:

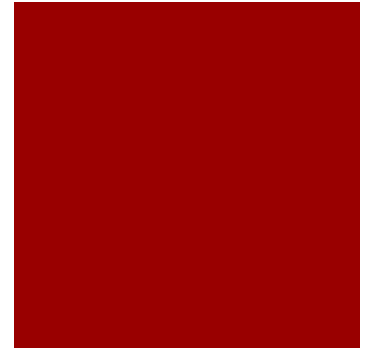
Buscar:	en los campos:	opciones:
<input type="checkbox"/> cocaína heroína cannabis alcohol	Título en español	alguna palabra
Y <input type="checkbox"/> joven* adolescente* escolar*	Título en español	alguna palabra
Y <input type="checkbox"/> accidente* de tráfico	Título en español	todas las palabras

Año publicación: después de  2000

Buttons:



## 2. Bibliographic searches: search strategies



### E) ESTABLISHING THE SEARCH EQUATION

Truncation operators and wildcards: they are symbols that substitute one or several characters of a word, so that they can locate a term and its possible variants. Most common symbols: \*, ?, \$ (Vary by database).

**Truncation operators**

## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

Truncation operators and wildcards: types of truncation: Open truncation - add a symbol to the end of the root of the term where we want to truncate. Example: bibliot \*, bibliot \$; Restrictive truncation - enables the subtraction of a single character, especially for searching for singular and plural. Example: Library?; Internal truncation - replace one or more characters within a term. Example: Mari? Uana.

**Truncation operators**

## 2. Bibliographic searches: search strategies

### Truncation operators

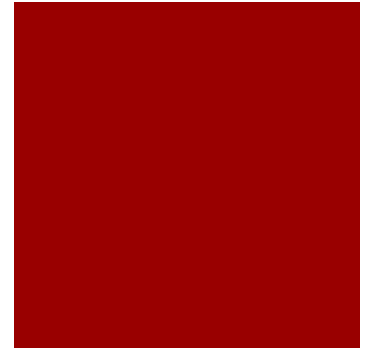
Advisable for long terms because forms derived from the same term are obtained (gerunds, participles, plurals, substantives and adjectives of verbs). Do not perform on fewer than four letters at the root. It should be used with caution to avoid introducing noise with unexpected terms. Enables greater completeness. Symbols often used are \* \$?



## 2. Bibliographic searches: search strategies

### Truncation operators

Examples of incorrect truncates: Dep \* to retrieve articles on 'depreciation' Noise is generated as you would also obtain documents about: 'deport', 'depose', 'depression', 'depart' etc.

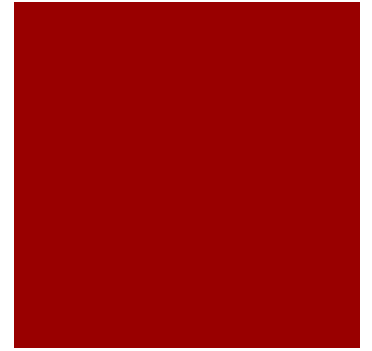




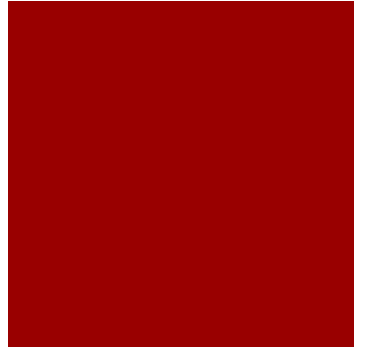
## 2. Bibliographic searches: search strategies

### Truncation operators

Examples of incorrect truncations. To recover works related to substance users (consumers, etc.) we have made the following truncation: Cons \* Noise is generated because we will also obtain documents about: 'constipation', 'conserve', 'cons', etc.



## 2. Bibliographic searches: search strategies

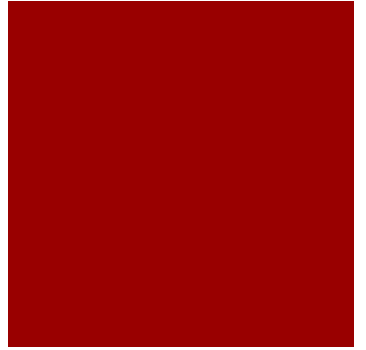


### E) ESTABLISHING THE SEARCH EQUATION

Some recommendations for searches:

Group the terms to be linked to the addition operator (O) to gather different views of the same concept or synonyms. Separate different groups of terms by parentheses. Link the groups of terms that express concepts that must be together through the intersection operator (Y). Make any exclusions or limitations with the negation operator (NO).

## 2. Bibliographic searches: search strategies



### E) ESTABLISHING THE SEARCH EQUATION

Some recommendations for searches. Use of parentheses:

Example: 'Diagnosis and Prevention of drug dependence'  
Incorrect search with possibility of noise: diagnosis OR prevention and drug dependence

Correct search: (diagnosis OR prevention) AND drug addiction

## 2. Bibliographic searches: search strategies

### E) ESTABLISHING THE SEARCH EQUATION

Some considerations on operators (I):

They enable you to control the size of the recovered set. There is an order of precedence: From left to right. First the Y, then the O and the NO. Parentheses always run first. Start searches with Boolean operators and minimise them.

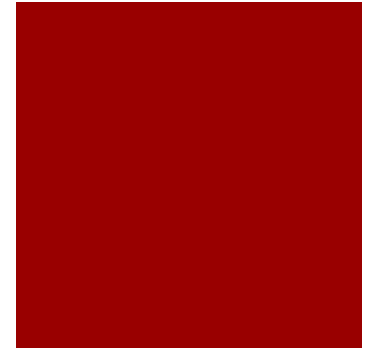


## 2. Bibliographic searches: search strategies

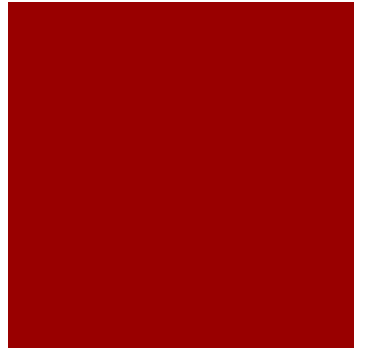
### E) ESTABLISHING THE SEARCH EQUATION

Some considerations on operators (II):

The NOT operator can sometimes cause errors in the search. Failure to correctly apply the operators can result in a misinterpretation of the results. If no operator is specified between two terms, most systems consider that AND is the operator to use.



## 2. Bibliographic searches: search strategies



### E) ESTABLISHING THE SEARCH EQUATION

Some considerations on operators (III):

Limitations of the logical or boolean operators: they do not establish order of relevance. You cannot vary the depth of a search.

Possible problems that can arise from logical operators: the logical sum does not necessarily match the arithmetic sum. Sometimes the 'AND' coordination of the natural language must be translated 'OR' in Boolean. The exclusion operator 'NOT' should be used with caution to avoid losing relevant documents.

## 2. Bibliographic searches: search strategies

### F) MAKE THE SEARCH, VIEW, AND EVALUATE RESULTS

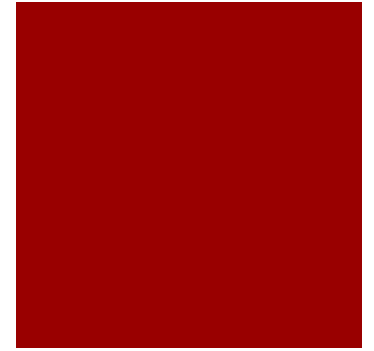
There are several options for searches: simple search - enter a search term in the respective box on the initial screen of the database; search in basic fields - search for a single term or root applied to a particular field; search by combining several terms in different fields - search in specific fields, the system will be limited to locate the term in a particular field. Example: Smith in AU (author field). Narrow searches: language, year of publication, type of document, etc.



## 2. Bibliographic searches: search strategies

F) MAKE THE SEARCH, VIEW AND EVALUATE THE RESULTS.

Silent information (few results). Strategy: search synonyms and use the OR operator; truncate - replace descriptors by natural language words; search in all fields - decrease the operators of intersection, negation, limitation, or comparison.





## 2. Bibliographic searches: search strategies

F) MAKE THE SEARCH, VIEW AND EVALUATE THE RESULTS.

Noise informative (many results). Strategy: increase the use of Boolean operators (AND, NOT). Add proximity operators (NEAR, WITH). Delete truncates. Delete keywords that give too many results. Use descriptors. Search in specific fields (Title).





# Session 4. Main databases

Information science and scientific methodology  
Degree in Pharmacy 2017-18

# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary.

Multidisciplinary. Science Citation Index-Expanded (Web of Knowledge). Journal Citation Reports. Scopus.



# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary.  
ISI Web of Knowledge.

The Institute for Scientific Information (ISI), now the Thomson Reuters company (<http://www.isinet.com>), disseminates its databases through the Web of Knowledge (WOK) portal, which allows consultation of the Web of Science (WOS) which includes the Science Citation Index Expanded databases, Social Sciences Citation Index and Arts, Humanities Citation Index; as well as the Journal Citations Reports database. The Ministry of Education and Science, through the Spanish Foundation for Science and Technology (FECYT), has offered the Spanish scientific community access to WOK since 2004 for universities, technology centers, hospitals, and other Spanish R & D bodies. One of the peculiarities of the WOS databases is that they include bibliographical references for the articles quoted in the bibliographies of the source articles, so it is possible to retrieve and navigate between the cited works.

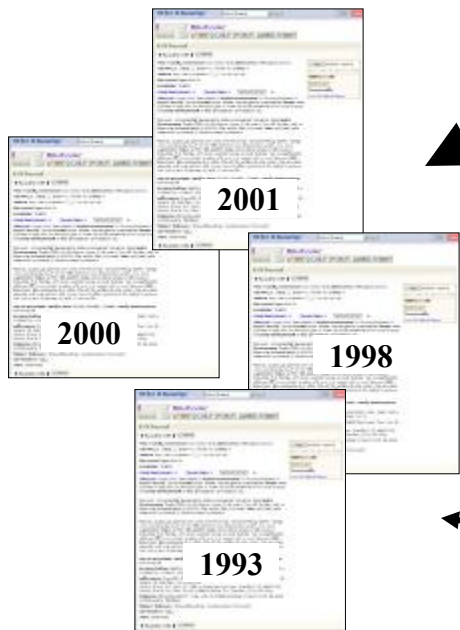
# 1. Main multidisciplinary databases

## **CONCEPTUAL ACCURACY...**

Difference between REFERENCE and CITATION from the point of view of documentation and citation indexes: a bibliographical reference is the set of data that describes the source of information used to carry out the work that is being presented (necessarily the bibliographical references refer to previous works). A citation is the mention that a scientific work receives in later works (not necessarily published).

Web of Science opens the bibliographical references that have been included in a registry

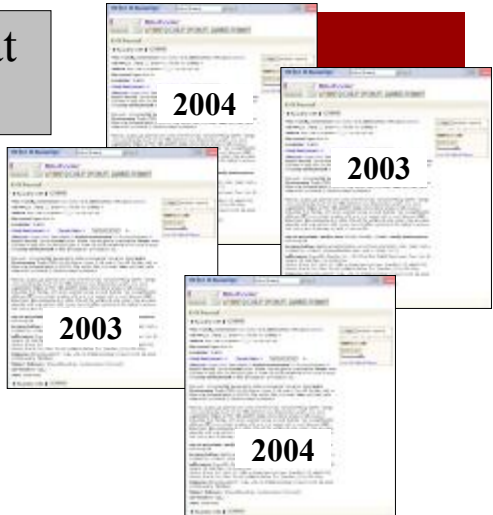
Subsequent works citing that record



*Cited references*



*Times cited*



*Related records*

← Citing ←



Works related to the record, selected on criteria that include common citations

Web of Science®

- WELCOME
- HELP
- GENERAL SEARCH
- CITED REF SEARCH
- STRUCTURE SEARCH
- SEARCH HISTORY
- ADVANCED SEARCH

Full Record

Record 15 of 132 SUMMARY

**Title:** dsRNA-mediated **gene silencing** in cultured *Drosophila* cells: a tissue culture model for the analysis of **RNA interference**

**Author(s):** Caplen NJ, Fleenor J, Fire A, Morgan RA

**Source:** GENE 252 (1-2): 95-105 JUL 11 2000

**Document Type:** Article

**Language:** English

[Cited References: 36](#)

[Times Cited: 62](#)

FIND RELATED RECORDS

**Abstract:** RNA interference (RNAi) is a form of post-transcriptional **gene silencing** that has been described in a number of plant, nematode, protozoan, and invertebrate species. dsRNA is taken up across cell membranes and processed into small interfering RNAs (siRNAs) that bind to and silence target mRNAs.

MARK [0 articles marked]

(Save, Export, E-mail, Order, Print)

Create Citation Alert

CREATE CITATION ALERT

Receive e-mail alerts on future citation to this record, (Requires registration.)

Additional Links

VIEW FULL TEXT

The following documents are bibliographic references cited by the above article:

FIND RELATED RECORDS

Clear the checkbox to the left of an item if you do not want to include it in your records.

CLEAR ALL	Cited Author	Cited Work
<input checked="" type="checkbox"/>	ALVARADO AS	P NATL ACADEM SCI USA
<input checked="" type="checkbox"/>	BAHRAMIAN MB	MOL CELL BIOL
<input checked="" type="checkbox"/>	BOSHER JM	GENETICS
<input checked="" type="checkbox"/>	BOSHER JM	NAT CELL BIOL
<input checked="" type="checkbox"/>	CAPLEN NJ	GENE
<input checked="" type="checkbox"/>	CHERBAS L	METHODS
<input checked="" type="checkbox"/>	CLEMENS MJ	J INTERFERON RES
<input checked="" type="checkbox"/>	COGONI C	NATURE
<input checked="" type="checkbox"/>	COGONI C	SCIENCE
<input checked="" type="checkbox"/>	FAY DS	DEV BIOL
<input checked="" type="checkbox"/>	FELGNER JH	J BIOL CHEM
<input checked="" type="checkbox"/>	FIRE A	NATURE
<input checked="" type="checkbox"/>	FIRE A	TRENDS GENET
<input checked="" type="checkbox"/>	GRAHAM FL	BIOTECHNIQUES
<input checked="" type="checkbox"/>	HAMMOND SM	NATURE

These documents in the database cite the above record:

- 62 results found  
Records 1 -- 10
- Use the checkboxes to select individual records for marking, then click Submit to add them to the Marked List.
- 1. Ling X, Li FZ. [Silencing of antiapoptotic survival gene by microRNA interference technology](#). BIOTECHNIQUES 26 (3): 450-4 MAR 2004
  - 2. Grabarek JB. [RNA silencing](#). ADVANCES IN EXPERIMENTAL MEDICINE AND PHYSIOLOGY 463: 1-10 2004
  - 3. van Roessel P, Brand AH. [Spreading silence with Sid](#). GENOME BIOLOGY 5 (2): Art. No. 208 2004
  - 4. Silverstein AM, Mumby MC. [Analysis of protein phosphatase function in Drosophila RNA interference](#). METHODS IN ENZYMOLOGY 366: 361-372 2004
  - 5. Shimizu O, O'Connor MB. [Physical properties of Tid, Tag, Tsg and Dpp to help create a sharp boundary in Rnp spots in the Drosophila embryo](#). DEVELOPMENT 130 (19): 4673-4682 OCT 2003

Related Records -- Summary

The records below are related to this parent record and are sorted by the most shared references:

CAPLEN NJ. dsRNA-mediated **gene silencing** in cultured *Drosophila* cells: a tissue culture model for the analysis of **RNA interference**

Cited References: 36 References Selected: 36

3,268 results found

Go to Page: 1 of 327 60

Records 1 -- 10

Use the checkboxes to select individual records for marking, then click Submit to add them to the Marked List.

	Cited Refs	Shared Refs	Mark: [0 articles marked]
<input type="checkbox"/> 1. Tuschl T. <a href="#">RNA interference and small interfering RNAs</a> . CHEMBOCHEM 2 (4): 239-245 APR 2 2001	60	20	<input type="checkbox"/> All records on this page
<input type="checkbox"/> 2. Cogoni C. <a href="#">Homology-dependent gene silencing mechanisms in fungi</a> . ANNUAL REVIEW OF MICROBIOLOGY 55: 381-406 2001	154	10	<input type="checkbox"/> Records [ ] to [ ]
<input type="checkbox"/> 3. Grishok A, Mello CC. <a href="#">RNAi (Nematodes : Caenorhabditis elegans)</a> . ADVANCES IN GENETICS INCORPORATING MOLECULAR GENETICS 46: 229-309 2000	109	18	<input type="button" value="SUBMIT"/>

You can print, save, export, email, and order records after adding them to the Marked List. (The list can hold 500 records.)

Analyze Results:

ANALYZE

(C) 2000 Elsevier Science

**Author Keywords:** post-transcriptional gene silencing

**KeyWords Plus:** DOUBLE STRANDED RNA

# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary.  
ISI Web of Knowledge.

## Productos bibliográficos, de citas y actualización de contenidos:

- **Web of Science. Índices de citas** de más de 10.000 revistas que se divide en *Science Citation Index Expanded*, *Social Sciences Citation Index*, *Arts & Humanities Citation Index*, *Index Chemicus* y *Current Chemical Reactions*.
- **Current Contents Connect** es un boletín de sumarios recoge el contenido de unas 7.600 revistas, 2.000 libros y enlaces a más de 4.000 sitios web seleccionados y evaluados por ISI. Actualización diaria.

## Productos Especializados:

- **ISI Proceedings** actas de las conferencias más prestigiosas en Ciencias, Ciencias Sociales y Humanidades. Desde 1990.
- **Derwent Innovations Index** recoge más de 22 millones de patentes. Desde 1980.

## Productos para Análisis y Evaluación:

- **Journal Citation Reports** datos de investigación y estadísticas de impacto de las revistas científicas.
- **Essential Science Indicators** macroindicadores de la actividad científica por disciplinas, países, temas principales de investigación etc.





# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. ISI Web of Knowledge. Science Citation Index-Expanded

Thematic scope and coverage international literature in a wide range of disciplines:

Medicine

Pharmacology

Physics

Chemistry

Biology

Computer Science

Mathematics...

It covers from 1945 to the present : weekly updates



# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. ISI Web of Knowledge. Journal Citation Reports

Servicio proporcionado por la FECYT y el MICINN

ISI Web of Knowledge<sup>SM</sup>

Journal Citation Reports<sup>®</sup>

Select a JCR edition and year:	Select an option:
<input checked="" type="radio"/> JCR Science Edition <input type="text" value="2008"/>	<input checked="" type="radio"/> View a group of journals by <input type="text" value="Subject Category"/>
<input type="radio"/> JCR Social Sciences Edition <input type="text" value="2008"/>	<input type="radio"/> Search for a specific journal
	<input type="radio"/> View all journals
<input type="button" value="SUBMIT"/>	

*This product is best viewed in 800x600 or higher resolution*

*The Notices file was last updated Wed Sep 30 09:45:50 2009*

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Copyright © 2009 [Thomson Reuters](#).

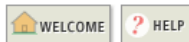
# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. ISI Web of Knowledge. Science Citation Index-Expanded

Servicio proporcionado por la FECYT y el MICINN

ISI Web of Knowledge<sup>SM</sup>

Journal Citation Reports<sup>®</sup>



Subject Category Selection

<b>1) Select one or more categories from the list.</b> <a href="#">(How to select more than one)</a>	<ul style="list-style-type: none"><li>PARASITOLOGY</li><li>PATHOLOGY</li><li>PEDIATRICS</li><li>PERIPHERAL VASCULAR DISEASE</li><li><b>PHARMACOLOGY &amp; PHARMACY</b></li><li>PHYSICS, APPLIED</li><li>PHYSICS, ATOMIC, MOLECULAR &amp; CHEMICAL</li><li>PHYSICS, CONDENSED MATTER</li><li>PHYSICS, FLUIDS &amp; PLASMAS</li></ul>
<b>2) Select to view Journal data or aggregate Category data.</b>	<p><input checked="" type="radio"/> <b>View Journal Data</b> - sort by: <input type="text" value="Journal Title"/></p> <p><input type="radio"/> <b>View Category Data</b> - sort by: <input type="text" value="Category Title"/></p>
<input type="button" value="SUBMIT"/>	

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# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. ISI Web of Knowledge. Science Citation Index-Expanded

**Journal Summary List** [Journal Title](#)

Journals from: **subject categories PHARMACOLOGY & PHARMACY** [VIEW CATEGORY SUMMARY LIST](#)

Sorted by:  [SORT AGAIN](#)

Journals 1 - 20 (of 219) Page

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to journal information)</i>	ISSN	JCR Data <sup>↓</sup>						Eigenfactor™ Metrics <sup>↓</sup>	
				Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor™ Score	Article Influence™ Score
<input type="checkbox"/>	1	<a href="#">NAT REV DRUG DISCOV</a>	1474-1776	10062	28.690	24.856	4.726	62	3.7	0.06812	9.203
<input type="checkbox"/>	2	<a href="#">PHARMACOL REV</a>	0031-6997	9184	21.936	22.537	2.444	18	8.3	0.02077	7.743
<input type="checkbox"/>	3	<a href="#">ANNU REV PHARMACOL</a>	0362-1642	6510	21.561	20.475	6.783	23	7.5	0.02029	7.760
<input type="checkbox"/>	4	<a href="#">PHARMACOL THERAPEUT</a>	0163-7258	8536	9.443	9.217	1.409	93	6.1	0.03124	3.190
<input type="checkbox"/>	5	<a href="#">DRUG RESIST UPDATE</a>	1368-7646	1406	9.412	7.513	1.250	16	4.8	0.00588	2.229
<input type="checkbox"/>	6	<a href="#">TRENDS PHARMACOL SCI</a>	0165-6147	9642	9.340	9.661	1.675	83	6.3	0.03391	3.305
<input type="checkbox"/>	7	<a href="#">MED RES REV</a>	0198-6325	2426	8.907	8.558	2.935	31	5.8	0.00707	2.313
<input type="checkbox"/>	8	<a href="#">ADV DRUG DELIVER REV</a>	0169-409X	12455	8.287	10.625	2.302	126	6.4	0.03170	2.866
<input type="checkbox"/>	9	<a href="#">CLIN PHARMACOL THER</a>	0009-9236	12184	7.586	7.843	2.014	213	7.4	0.02763	2.024
<input type="checkbox"/>	10	<a href="#">NEUROPSYCHOPHARMACOL</a>	0893-133X	14491	6.835	6.716	2.106	284	4.8	0.05970	2.164
<input type="checkbox"/>	11	<a href="#">DRUG DISCOV TODAY</a>	1359-6446	5570	6.618	7.432	0.788	132	3.8	0.02676	2.118
<input type="checkbox"/>	12	<a href="#">CURR OPIN PHARMACOL</a>	1471-4892	3331	6.528	5.898	0.733	101	3.7	0.02050	2.010
<input type="checkbox"/>	13	<a href="#">REV PHYSIOL BIOCH P</a>	0303-4240	1005	5.867		1.400	5	6.0	0.00447	
<input type="checkbox"/>	14	<a href="#">J CONTROL RELEASE</a>	0168-3659	18716	5.690	6.116	0.873	252	6.0	0.04426	1.327
<input type="checkbox"/>	15	<a href="#">DRUG METAB REV</a>	0360-2532	2055	5.622	6.039	1.400	20	6.5	0.00575	1.695
<input type="checkbox"/>	16	<a href="#">AAPS J</a>	1550-7416	1064	5.529	4.703	0.242	62	2.7	0.00591	1.202
<input type="checkbox"/>	17	<a href="#">PHARMACOGENOMICS J</a>	1470-269X	1445	5.435	4.964	1.520	50	3.5	0.00687	1.384
<input type="checkbox"/>	18	<a href="#">BRIT J PHARMACOL</a>	0007-1188	23987	4.902	4.214	1.297	536	7.8	0.05423	1.211
<input type="checkbox"/>	19	<a href="#">BIOCHEM PHARMACOL</a>	0006-2952	23012	4.838	4.010	0.945	362	8.7	0.05099	1.134
<input type="checkbox"/>	20	<a href="#">CURR MED CHEM</a>	0929-8673	7839	4.823	5.291	0.547	256	4.2	0.03623	1.544

# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. ISI Web of Knowledge.

Producer: Thomson Reuters (formerly Institute for Scientific Information). Time coverage: variable depending on the database. Geographical coverage: international, with Anglo-Saxon predominance. Materials: Web of Knowledge (WOK) is the web portal for consultation for all databases and products edited by Thomson Reuters. It is a multidisciplinary resource that contains bibliographical information on the works published in the most prestigious scientific journals in the world, as well as tools for analysing the publications themselves and other products such as conference proceedings and patents. Volume: Web of Science collects about 8,500 journals and is divided into Science Citation Index Expanded, Social Sciences Citation Index, Art & Humanities Citation Index, Index Chemicus and Current Chemical Reactions. WOK also includes the Journal Citation Reports, an evaluation tool for more periodicals, with a significant increase in journal coverage over the last few years.



# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. Scopus

Bibliographic database and abstracts of articles of the Editorial Elsevier magazines of that aims to become the main supplier of scientific contents and seeks to achieve an equitable geographical distribution of the journal titles. Elsevier accepts non-English language publications as long as the articles are accompanied by abstracts in English and comply with the basic standards of scientific quality. It offers access to more than 25 million abstracts (since 1966), being the main multidisciplinary bibliographic database worldwide in terms of coverage (<http://www.scopus.com/home.url>). In addition to the bibliographical information of the documents, it includes the bibliographical references (like a citation index). Another of the distinguishing features of this database is the variety of formats: including magazines, books, reference works, conference proceedings, patents, and results of 433 million scientific web resources.



# 1. Main multidisciplinary databases

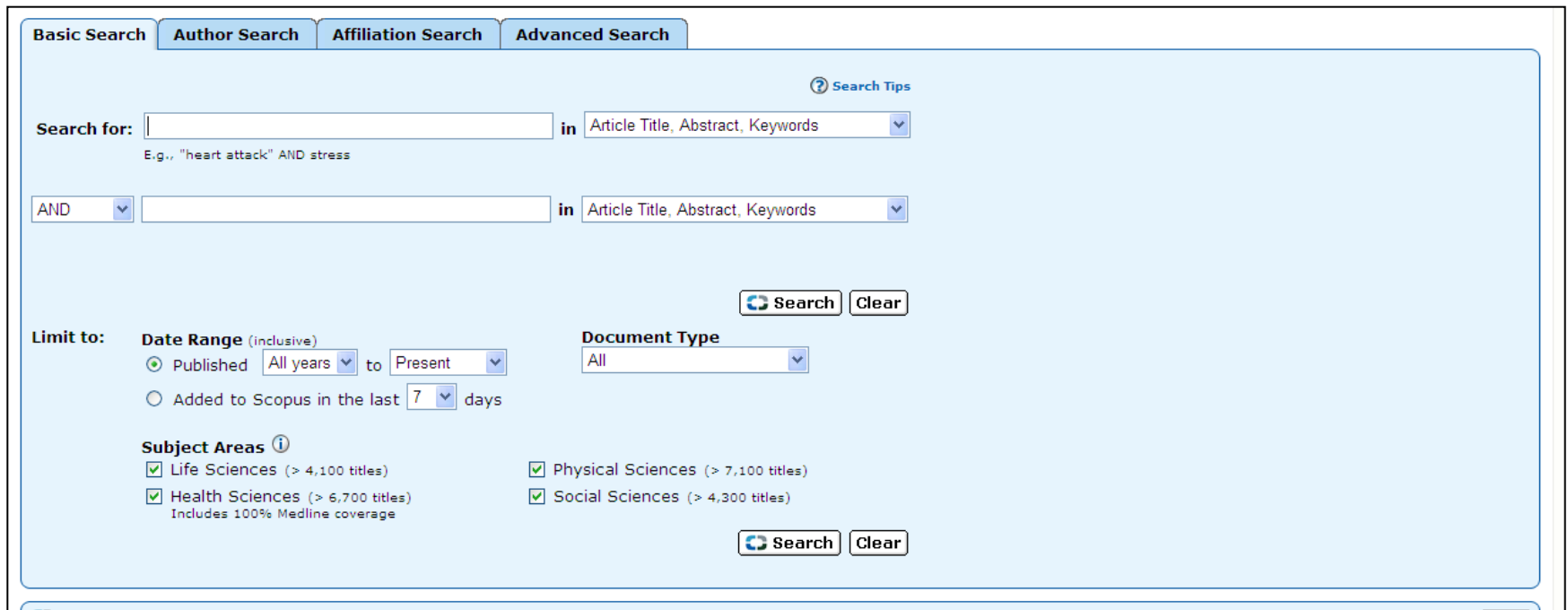
Databases of journal articles. Multidisciplinary. Scopus

Its magazine coverage includes approximately 80% of the international publications reviewed by specialists, with weekly updates. Coverage by disciplines: chemistry, physics, mathematics and engineering: 5,400 journals. Life sciences: 4,100 journals. Health sciences: 6,700 journals (100% of Medline coverage). Social sciences, psychology and economics: 4,300 publications.



# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. Scopus



The screenshot displays the Scopus search interface with the following elements:

- Navigation tabs:** Basic Search (selected), Author Search, Affiliation Search, and Advanced Search.
- Search for:** A text input field with a dropdown menu set to "Article Title, Abstract, Keywords". Below the input is the example text: "E.g., 'heart attack' AND stress".
- AND:** A dropdown menu set to "AND" followed by another empty search input field and a dropdown menu set to "Article Title, Abstract, Keywords".
- Buttons:** "Search" and "Clear" buttons.
- Limit to:**
  - Date Range (inclusive):** Radio buttons for "Published" (selected) and "Added to Scopus in the last 7 days". The "Published" option has dropdowns for "All years" and "Present".
  - Document Type:** A dropdown menu set to "All".
- Subject Areas:** A section with an information icon and four checked checkboxes:
  - Life Sciences (> 4,100 titles)
  - Health Sciences (> 6,700 titles) - Includes 100% Medline coverage
  - Physical Sciences (> 7,100 titles)
  - Social Sciences (> 4,300 titles)
- Buttons:** "Search" and "Clear" buttons at the bottom.



# 1. Main multidisciplinary databases

Databases of journal articles. Multidisciplinary. Scopus

Producer: Elsevier. Thematic area: Multidisciplinary.

Content: More than 25 million magazine articles (4,100 journals for life sciences, 6,700 for health sciences). It also includes books, conference proceedings, patents, and results of 433 million scientific web resources.

Chronological coverage: since 1966. Geographic coverage: international.



## 2. Main health sciences databases

Databases of journal articles. Health sciences. Spain

IME - Spanish Medical Index (Consejo Superior de Investigaciones Científicas).

IBECS - Spanish Bibliographical Index in Health Sciences (Carlos III Health Institute)

MEDES - Medicine in Spanish (Fundación Lilly).

CUIDEN - Nursing Care (Index Foundation - Nursing)

ENFISPO



## 2. Main health science databases



Databases of journal articles. Health sciences. Spain.

IME

The IME database (Spanish Medical Index) is the electronic version of the bibliographic repertoire developed since 1970 in the Institute of History of Science and Documentation López Piñero of Valencia (University of Valencia and the CSIC). It includes the bibliographical references of most of the Spanish health scientific journals: more than 330 magazines with an annual growth greater than 10.000 references. Its current size exceeds 270,000 records. It selects the magazines that it includes in its coverage, using various criteria. From the qualitative point of view, it takes into account compliance with UNE standards for periodical publications and presentation of scientific articles, as well as other formal aspects. From a quantitative point of view, several bibliometric indicators are taken into account, including the impact factor of each journal and its age.

## 2. Main health science databases



The screenshot shows the CINDOC website interface. The main header is green and contains the text "Bases de datos Bibliográficas del CSIC". Below the header, there is a navigation menu on the left with sections: "Inicio", "Bases de datos", "Directorio de revistas", and "Contacto". The "Bases de datos" section lists three databases: "ICYT Ciencia y Tecnología", "ISOC CC. Sociales y Humanidades", and "IME Biomedicina". The "Directorio de revistas" section lists three journals: "Ciencia y Tecnología", "CC.Sociales y Humanidades", and "Biomedicina". The "Contacto" section lists "Productores y distribuidores" and "Sugerencias".

The main content area is titled "Presentación" and contains the text: "Las bases de datos bibliográficas ICYT, ISOC e IME contienen la producción científica publicada en España desde los años 70. Recogen fundamentalmente artículos de Revistas científicas y de forma selectiva Actas de congresos, Series, Compilaciones, Informes y Monografías." Below this text is a search interface with four tabs: "Búsqueda simple", "Búsqueda por campos", "Búsqueda por índices", and "Búsqueda por comandos". The "Búsqueda simple" tab is active. The search interface includes a search box, a "Buscar" button, and a dropdown menu for selecting the database. The dropdown menu is currently set to "ISOC - CC. Sociales y Humanidades". A red arrow points from a red box on the right to the dropdown menu.

**Select the database**

**Bases de datos**

- [ICYT - Ciencia y Tecnología](#)  
Producida por el Centro de Información y Documentación Científica (CINDOC), del CSIC.
- [ISOC - Ciencias Sociales y Humanidades](#)  
Producida por el Centro de Información y Documentación Científica (CINDOC), del CSIC.
- [IME - Biomedicina](#)  
Producida por el Instituto de Historia de la Ciencia y Documentación López Piñero (Instituto mixto Universidad de Valencia - CSIC).

**Directorios de revistas españolas (descripción completa de las revistas incluidas en las bases de datos)**

- [Revistas de Ciencia y Tecnología](#)  
Producida por el Centro de Información y Documentación Científica (CINDOC), del CSIC.
- [Revistas de Ciencias Sociales y Humanidades](#)  
Producida por el Centro de Información y Documentación Científica (CINDOC), del CSIC.
- [Revistas de Biomedicina](#)  
Producida por el Instituto de Historia de la Ciencia y Documentación López Piñero (Instituto mixto Universidad de Valencia - CSIC).

**Basic search**

## 2. Main health science databases

CCHS > Acceso gratuito > Sumarios

 **Sumarios IME - Biomedicina**

**Inicio** | [Búsqueda simple](#) | **[Búsqueda por campos](#)** | [Búsqueda por índices](#)

[Presentación](#)  
[Suscripción](#)  
[Ayuda](#)

**Bases de datos**  
[Sumarios ICYT Ciencia y Tecnología](#)  
[Sumarios ISOC CC. Sociales y Humanidades](#)  
[Sumarios IME Biomedicina](#)

**Dir. de revistas**

Formulario de búsqueda

Buscar:	en los campos:	opciones:
<input type="checkbox"/> cocaína heroína cannabis alcohol	Título en español	alguna palabra
Y <input type="checkbox"/> joven* adolescente* escolar*	Título en español	alguna palabra
Y <input type="checkbox"/> accidente* de trafico	Título en español	todas las palabras

Año publicación: después de

**Field search**

## 2. Main health science databases

Resultados: 2 documento(s)

mostrar: 20 ordenar: Año Pub. Des. salida: Completa Aplicar

Guardar selección Seleccionar: [Todos](#), [Ninguno](#)

**Joven con consumo de alcohol y cannabis y accidente de tráfico**  
**Núm. Registro:** 283898  
**Autores:** Álvarez-González, F; GÓMEZ-TALEGÓN, M  
**Título en Inglés:** Youth with alcohol and cannabis consumption in traffic accident  
**ISSN:** 1575-0973  
**Revista:** [Trastornos Adictivos](#)  
**Datos Fuente:** 2006, 8 (1): 14-14, 0 ref.  
**CopyRight:** © CSIC - UV. Base de Datos IME. Todos los derechos reservados.

**Alcohol, jóvenes y accidentes de tráfico**  
**Núm. Registro:** 250847  
**Autores:** del Rio, MC  
**Título en Inglés:** Young people, alcohol and driving  
**ISSN:** 1575-0973  
**Revista:** [Trastornos Adictivos](#)  
**Datos Fuente:** 2002, 4 (1): 20-27, 27 ref.  
**CopyRight:** © CSIC - UV. Base de Datos IME. Todos los derechos reservados.

**Example of abbreviated record in IME**

## 2. Main health science databases



Databases of journal articles. Health Sciences. Spain.  
IBECS

IBECS stands for Spanish Bibliographical Index in Health Sciences, a database developed at the Carlos III Health Institute, the main Spanish public body responsible for promoting research in health sciences. It contains references to articles of scientific-sanitary journals published in Spain since the year 2000 in various branches of health sciences: such as medicine, public health, epidemiology and health administration. It also collects scientific content from areas such as pharmacy, veterinary, psychology, dentistry and nursing. It can be consulted for free and has a controlled vocabulary to index document content.

## 2. Main health science database



The screenshot shows the IBECS search form interface. At the top left is the logo for 'bvs biblioteca virtual en salud' and a landscape image of a mountain. The main heading is 'Búsqueda en bases de datos' with a link 'Dé su opinión'. A navigation bar includes 'ayuda', 'Base de datos : IBECS', and 'Formulario básico'. Below this is a search area with three rows of input fields. Each row has a search term (1, 2, 3), a dropdown menu (all set to 'and'), a search field, and a dropdown menu for 'en el campo' (all set to 'Todos los índices'). There are also three 'índice' icons. At the bottom are buttons for 'config', 'limpiar', and 'búsqueda'. The footer includes 'Search engine: IAH powered by WWWISIS' and contact information for the Biblioteca Nacional de Ciencias de la Salud - Instituto de Salud Carlos III.

bvs biblioteca virtual en salud **Búsqueda en bases de datos** [Dé su opinión](#)

ayuda Base de datos : **IBECS** Formulario básico  
Buscar por : [Formulario libre](#)

Buscar en el campo

1			Todos los índices	índice
2	and		Todos los índices	índice
3	and		Todos los índices	índice

[config](#) [limpiar](#) [búsqueda](#)

Search engine: [IAH](#) powered by [WWWISIS](#)

Biblioteca Nacional de Ciencias de la Salud - Instituto de Salud Carlos III  
[bncs@isciii.es](mailto:bncs@isciii.es)

**IBECS Search form**



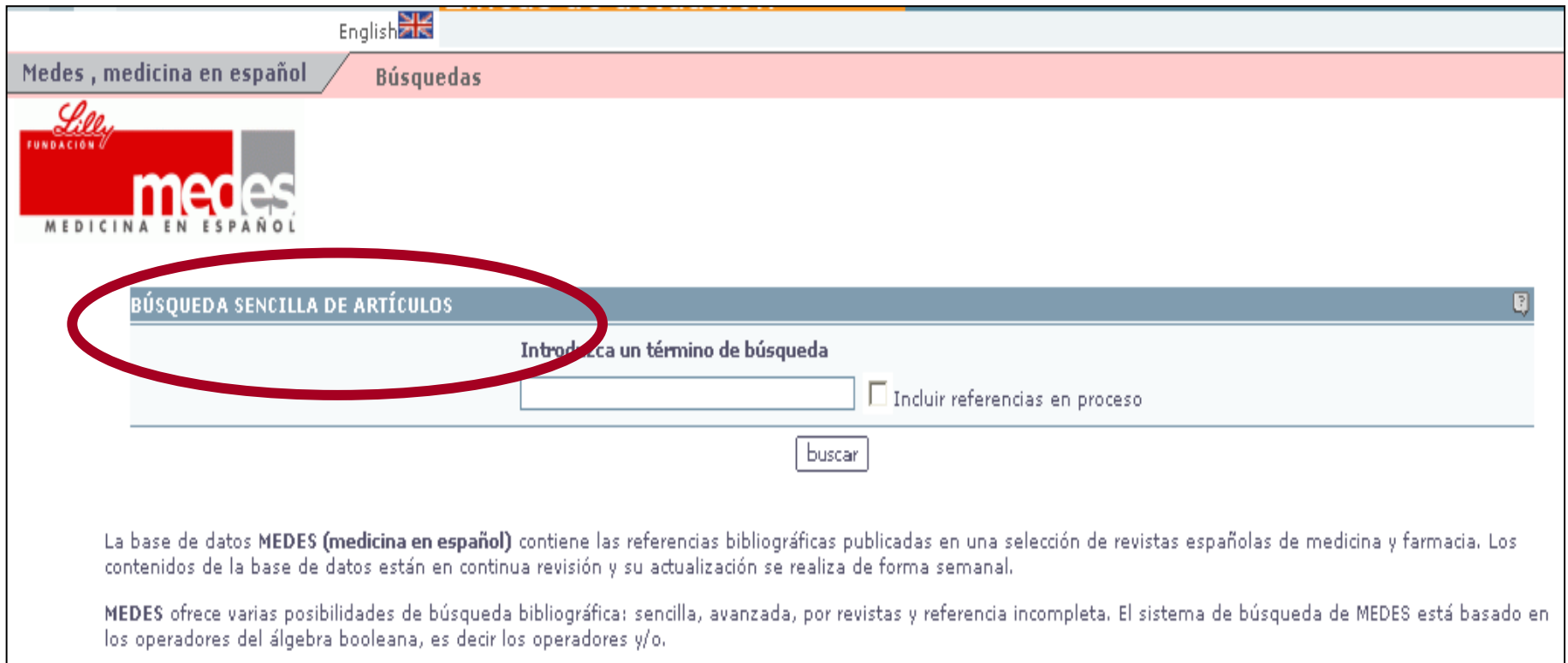
## 2. Main health science database




Databases of journal articles. Health Sciences. Spain.  
MEDES

The MEDES (Medicine in Spanish) initiative was created in 2005 by the Lilly Foundation. Its objective is to encourage publication in Spanish biomedical journals, as well as encouraging national and international dissemination through various activities of training, dissemination, research, prevention, consulting, technical assistance, and development of health projects. The initiative develops the bibliographic database Medes-Medicina en Español, with the aim of making available to health professionals (mostly in primary care) a consultation tool focused on aspects of clinical practice, through a rigorous selection of contents. Its coverage includes 55 magazines with monthly updates, and had over 20,000 registrations in 2007, most with author summary.


## 2. Main health science databases



The screenshot shows the MEDES website interface. At the top, there is a language selector set to "English" with a UK flag. Below this is a navigation bar with "Medes , medicina en español" and "Búsquedas". The main header features the "Lilly FUNDACIÓN medes MEDICINA EN ESPAÑOL" logo. A red oval highlights the "BÚSQUEDA SENCILLA DE ARTÍCULOS" section. Below this, there is a search input field with the placeholder text "Introduce un término de búsqueda", a checkbox for "Incluir referencias en proceso", and a "buscar" button. At the bottom, there is a paragraph of text describing the database and its search capabilities.

English 

Medes , medicina en español / Búsquedas



**BÚSQUEDA SENCILLA DE ARTÍCULOS**

Introduce un término de búsqueda

Incluir referencias en proceso


buscar

La base de datos **MEDES (medicina en español)** contiene las referencias bibliográficas publicadas en una selección de revistas españolas de medicina y farmacia. Los contenidos de la base de datos están en continua revisión y su actualización se realiza de forma semanal.

**MEDES** ofrece varias posibilidades de búsqueda bibliográfica: sencilla, avanzada, por revistas y referencia incompleta. El sistema de búsqueda de MEDES está basado en los operadores del álgebra booleana, es decir los operadores y/o.

**MEDES Basic search form**

## 2. Main health science databases

English 

Medes , medicina en español

**Búsquedas**

- Avanzada
- Sencilla
- Revistas
- Referencia incompleta

**BÚSQUEDA AVANZADA DE ARTÍCULO**

**CRITERIO DE BÚSQUEDA:**

Incluir referencias en proceso

**Buscar en:**

- Título del artículo
- Resumen del autor
- Palabras clave

**Añadir:**

**AUTORES:**

Si lo desea puede seleccionar el autor/es de la siguiente lista:

**seleccionado**

**LIMITAR LA BÚSQUEDA POR:**

**Tipo de publicación:**

Seleccione la publicación

**Año desde**  **hasta**

**REVISTAS:**

Seleccione una revista

**MEDES Advanced search form**

## 2. Main health sciences databases



Databases of journal articles. Health Sciences. Spain.  
CUIDEN and ENFISPO

CUIDEN (Nursing Care) is a database developed by the Foundation Index of Nursing that includes the scientific production of Spanish and Ibero-American Nursing. Provides references on journal articles, books, theses, reports and official publications. Query is free at: <http://www.index-f.com/busquedas.php>

ENFISPO allows the consultation of the catalogue of articles of a selection of magazines in Spanish that are received in the Library of the School of Nursing, Physiotherapy, and Podology of the Universidad Complutense de Madrid. Query is free at: <http://alfama.sim.ucm.es/isishtm/enfispo.asp>.

## 2. Main health science databases

Databases of journal articles. Health sciences.  
International.

- Pubmed / Medline
- LILACS (Latin America and Caribe Literature on Health Sciences)
- Cochrane Collaboration
- Embase



## 2. Main health sciences databases



Databases of journal articles. Health sciences.  
International. MEDLINE/PUBMED

The Medline database, produced by the National Library of Medicine, is currently the most widely used source of information in health sciences around the world. The printed version, Index Medicus, was first published in 1960, although its origins go back to 1879.

Its coverage is international, as it includes more than 4,500 journals from all areas of the health sciences, both clinical and experimental (including nursing and dentistry) from 70 countries.

Its size exceeds 15 million records, with monthly increases of 31,000 new references, which means an annual increase of more than 350,000 records. Some 70% of references are in English and 74% are summarised.

Since 1997 access to Medline has been free and universal - thanks to the internet and the creation of the PubMed portal (<http://www.ncbi.nlm.nih.gov/PubMed/>).

## 2. Main health science databases



Databases of journal articles. Health Sciences.  
International. MEDLINE/PUBMED

Along with wide coverage and free distribution, one of the main advantages of the Pubmed platform is that it allows for numerous limitations of clinical medical interest in searches (age groups, gender, type of study, etc.).

It also has a sophisticated thesaurus, the MeSH (Medical Subject Headings) that enables searches with great accuracy or completeness.

It also offers numerous possibilities for visualising and exporting results, and many scientific databases and resources are integrated into the Pubmed platform.

## 2. Main health science databases

The screenshot displays the PubMed website interface. At the top, the NCBI logo and the text 'Pubmed' are visible, along with the address 'www.pubmed.gov'. A search bar contains the text 'patient discharge'. Below the search bar, there are options for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The search results are displayed in a list format, with the first result being a Medline article from 2005. The article title is 'Accuracy of Medicaid payer coding in hospital patient discharge data: implications for Medicaid policy evaluation.' The author is Chaitrapakhar A, Budman AB. The abstract text is partially visible, discussing ambulatory care-sensitive hospitalization rates and Medicaid coverage. A red banner is overlaid on the right side of the screenshot with the text 'Pubmed basic search form'.

Search: Pubmed [for patient discharge] [Go] [Clear] [Save Search]

Enter PubMed  
Clipboard  
History  
Preview/Index  
Details

Display: Abstract | Show: 20 | Sort by: | Send to: | All: 67 | Rows: 5 | Items 1 - 20 of 67 | Page 1 of 4 Next

1: [Med Care.](#) 2005 Jan;43(1):586-91. [Related Articles, Links](#)

**Accuracy of Medicaid payer coding in hospital patient discharge data: implications for Medicaid policy evaluation.**

[Chaitrapakhar A, Budman AB.](#)

Primary Care Research Center and Division of General Internal Medicine, San Francisco General Hospital, University of California San Francisco, San Francisco, California 94143, USA.

**BACKGROUND:** Ambulatory care-sensitive hospitalization rates derived from hospital discharge data have been used to compare ambulatory care access insurance and delivery system groups. **OBJECTIVE:** We sought to quantify the impact of coding inaccuracies in hospital discharge data on counts of hospitalizations for ambulatory care-sensitive conditions among Medicaid beneficiaries. **METHODS:** This was a cross-sectional comparison of administrative databases of all California Medicaid beneficiaries younger than 65 years of age. We compared the number of hospitalizations for ambulatory care-sensitive conditions derived from routine hospital discharge data with the number derived from a Medicaid enrollment file. **RESULTS:** Approximately 9% of hospitalizations gained Medicaid coverage as a result of Medicaid enrollment file updates. **CONCLUSION:** Current models for the interpretation of Medicaid hospitalization rates as calculated from routine hospital discharge data. State agencies that provide hospital discharge data should consider the opportunity to improve the evaluation of Medicaid services by linking hospital discharge data with Medicaid enrollment files.

**Publisher Types:**

- [Evaluation Studies](#)

PMD: 1590853 [PubMed - indexed for MEDLINE]

2: [Hast San Nars.](#) 2004 October-December;34(4):174-175. [Related Articles, Links](#)

**Patient Discharge Instructions: Brain Care.**



## 2. Main health science databases

# Medical Subject Headings of Medline

See Also:

- [Drug and Narcotic Control](#)
- [Psychoses, Alcoholic](#)
- [Street Drugs](#)
- [Designer Drugs](#)
- [Codependency \(Psychology\)](#)
- [Alcohol-Related Disorders](#)

[All MeSH Categories](#)

[Diseases Category](#)

[Disorders of Environmental Origin](#)

**Substance-Related Disorders**

[Alcohol-Related Disorders](#)

[Alcohol-Induced Disorders](#) +

[Alcoholic Intoxication](#)

[Alcoholism](#)

[Wernicke Encephalopathy](#)

[Amphetamine-Related Disorders](#)

[Cocaine-Related Disorders](#)

[Marijuana Abuse](#)

[Neonatal Abstinence Syndrome](#)

[Opioid-Related Disorders](#)

[Heroin Dependence](#)

[Morphine Dependence](#)

[Phencyclidine Abuse](#)

[Psychoses, Substance-Induced](#)

[Substance Abuse, Intravenous](#)

[Substance Withdrawal Syndrome](#)

[Alcohol Withdrawal Delirium](#)

[Alcohol Withdrawal Seizures](#)

[Tobacco Use Disorder](#)

## 2. Main health science databases

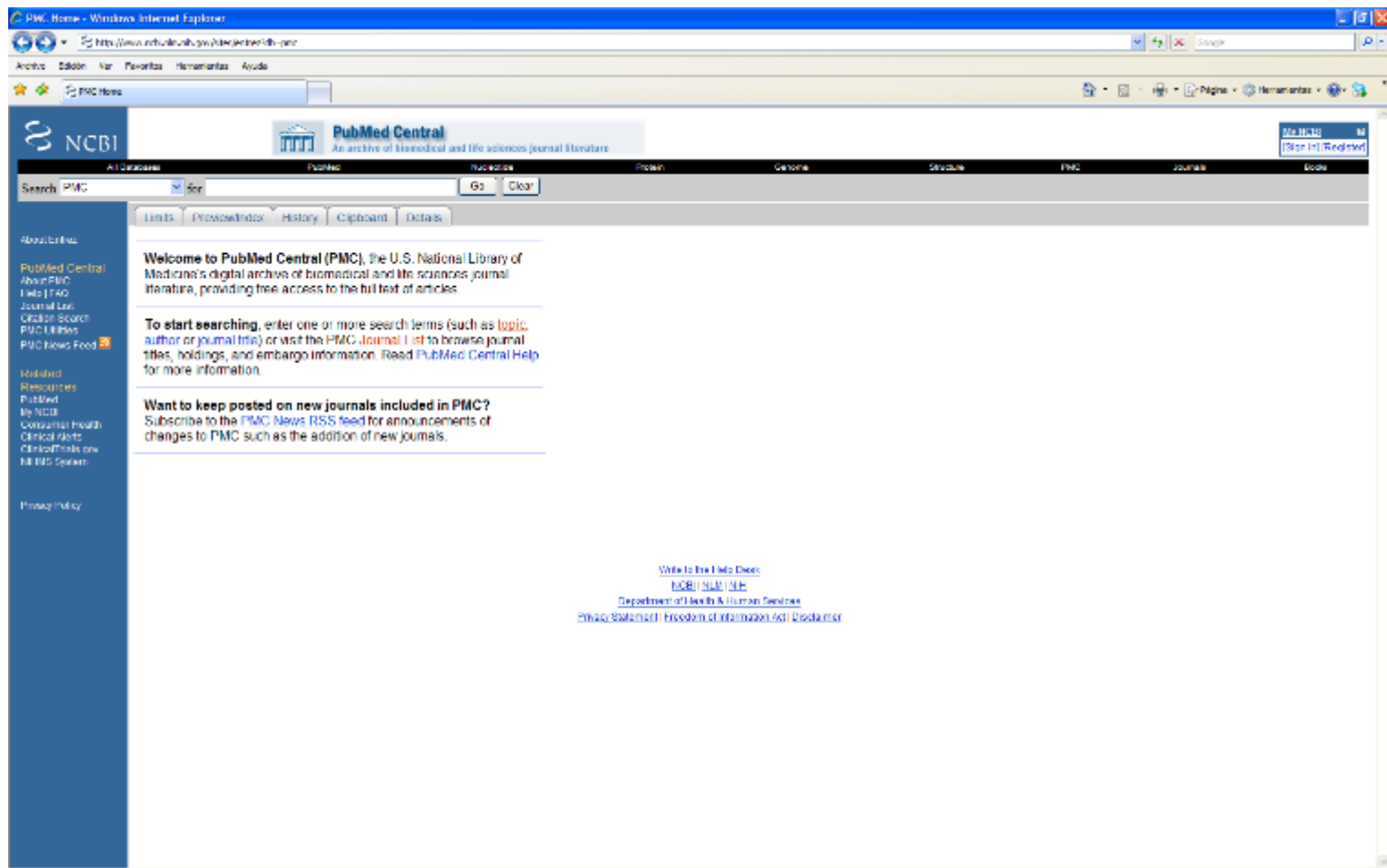
Databases of journal articles. Health sciences.  
International. MEDLINE/PUBMED

### PubMed tutorials

- [http://www.fisterra.com/recursos\\_web/no\\_explor/pubmed.htm](http://www.fisterra.com/recursos_web/no_explor/pubmed.htm)
- <http://www.infodoctor.org/neuro/medline.htm>
- [http://www.nlm.nih.gov/bsd/pubmed\\_tutorial/m1001.html](http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1001.html)

## 2. Main health science databases

**Pubmed Central** (<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pmc>)



The screenshot shows the PubMed Central website in a Windows Internet Explorer browser window. The address bar displays the URL <http://www.ncbi.nlm.nih.gov/sites/entrez?db=pmc>. The page features the NCBI logo and the PubMed Central header, which includes the text "An archive of biomedical and life sciences journal literature". A search bar is visible with the text "Search PMC for" and buttons for "Go" and "Clear". Below the search bar, there are navigation tabs for "Limits", "Preview/index", "History", "Clipboard", and "Details". The main content area contains a welcome message: "Welcome to PubMed Central (PMC), the U.S. National Library of Medicine's digital archive of biomedical and life sciences journal literature, providing free access to the full text of articles." It also includes instructions on how to start searching and a link to the PMC News RSS feed. The footer contains contact information for the National Center for Biotechnology Information (NCBI) and the Department of Health & Human Services.

## 2. Main health sciences databases



Databases of journal articles. Health sciences.  
International. MEDLINE/PUBMED

Thematic area: medicine and Health sciences.

Content: provides access to more than 11 million  
Medline, PreMedline, and other related databases.

Chronological coverage: since 1966.

Geographic coverage: international.

Working language: English.

Producer: National Library of Medicine, in collaboration  
with other institutions.

## 2. Main health science databases



Databases of journal articles. Health sciences.  
International. LILACS

LILACS (Latin American and Caribbean Literature in Health Sciences) is a database produced by BIREME (Latin American and Caribbean Center for Information on Health Sciences).

Includes scientific literature on health sciences published in these countries since 1982. Along with articles from around 670 journals, it also includes thesis references, book chapters, conference proceedings, scientific-technical reports, and government publications.

LILACS uses as indexing language the Descriptors in Health Sciences (DeCS), Spanish translation of Medline's Medical Subject Headings (MeSH).

## 2. Main health science databases

bvs **Búsqueda en bases de datos**

biblioteca virtual en salud [Dé su opinión](#) [português](#) | [english](#)

[? AYUDA](#) Base de datos : **LILACS** **Formulario básico**

Buscar por : [Formulario libre](#) [Formulario avanzado](#)

	Buscar	en el campo	
1	<input type="text"/>	Palabras <input type="button" value="v"/>	índice
2	and <input type="button" value="v"/> <input type="text"/>	Palabras <input type="button" value="v"/>	índice
3	and <input type="button" value="v"/> <input type="text"/>	Palabras <input type="button" value="v"/>	índice

## 2. Main health science databases



Databases of journal articles. Health sciences.  
International. COCHRANE COLLABORATION

The Cochrane Collaboration is an organisation for the collection, elaboration, and dissemination of systematic reviews.

These reviews are disseminated in the Cochrane Library database, which is published in English by the Cochrane Library Plus, and includes a Spanish translation of most of the reviews.

Free access is available thanks to the institutional subscription made by the Ministry of Health and Consumer Affairs at <http://www.update-software.com/clibplus/clibplus.htm>.

## 2. Main health science databases

http://www.update-software.com/Cibplus/CibPlus.asp

### La Biblioteca Cochrane Plus

UPDATE SOFTWARE

**VÍNCULOS**

- Acceder a la Biblioteca Cochrane Plus
- Los resúmenes de revisiones Cochrane
- ¿Ha olvidado su contraseña?
- Registrar un nombre de usuario
- Suscribirse
- ¿Qué es un RSS?



Acceder a la Biblioteca Cochrane Plus

La Biblioteca Cochrane Plus es la primera edición de The Cochrane Library realizada por Update Software en un idioma distinto al inglés.

Acceder a la Biblioteca Cochrane Plus

Elegir país en el siguiente menú desplegable.

— Seleccionar —

**XML Una selección de revisiones sistemáticas**

Intervenciones para mejorar el control de la presión arterial en pacientes hipertensos (Fahey T, Schroeder K, Ebrahim S)

Cribaje (screening) para los déficits de agudeza visual corregibles en niños y adolescentes en edad escolar (Pouell C, Wadner S, Richardson S)

Descompresión abdominal ante casos de presunta compromiso fetal o preeclampsia (Hofmayr GJ)

**Instrucciones:**

Si usted ya posee una suscripción o es miembro de una organización que está suscrita, puede acceder a la Biblioteca Cochrane Plus de forma anónima o mediante un nombre y una contraseña. En caso de problemas con el acceso, contactar con Infoglobal Support: Tel: +34 93 - 726 30 44 / +34 93 - 726 81 36 cochrane@infoglobal-support.com

**Edición de la Biblioteca Cochrane Plus:**

InfoGlobal Support

Centro Cochrane Iberoamericano

El Centro Cochrane Iberoamericano está ubicado en





## 2. Main health sciences databases

Databases of journal articles. Health Sciences.  
International. EMBASE

The Embase database corresponds to the bibliographic repertoire Excerpta Medica, published since 1947 in Amsterdam (Holland) by the Excerpta Medica Foundation.

Coverage is very broad: biomedical sciences and basic sciences related to it, as well as dentistry, psychology, nursing and veterinary. Includes over 5,000 periodicals from some 70 countries.

It differs from Medline in that it includes a greater number of European magazines, which partially alleviates the bias of Medline towards the Anglo-American magazines. Searches can be made using terms from the Emtree thesaurus, which contains more than 48,000 terms and about 200,000 synonyms (very similar to those in MeSH).



## 2. Main health sciences databases



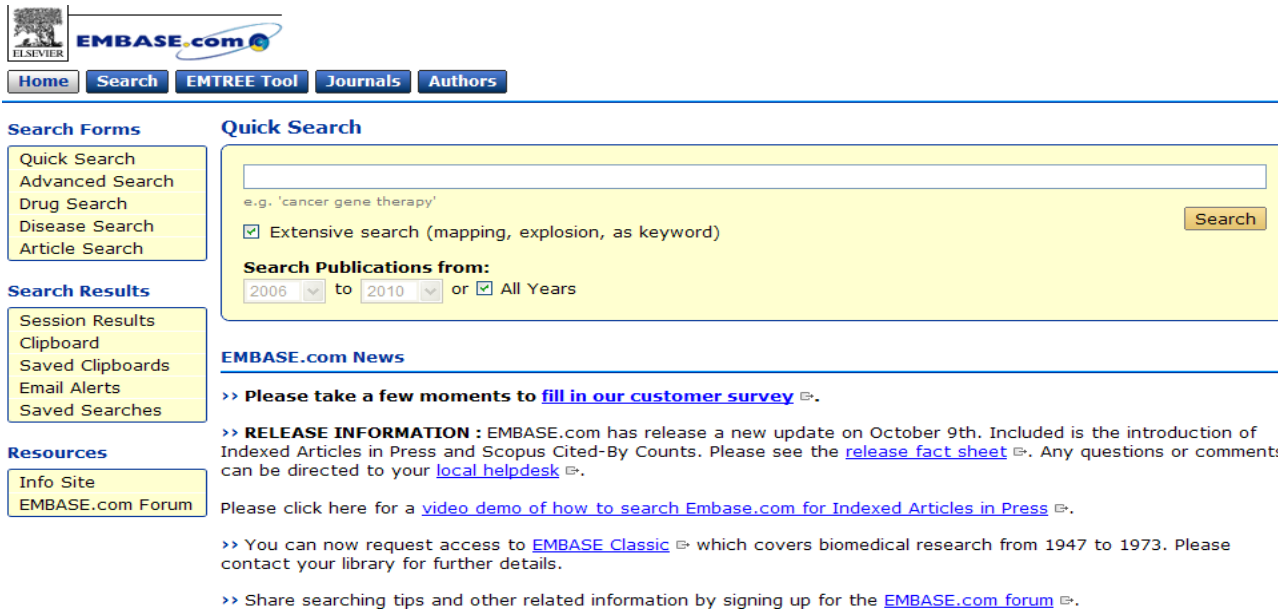
Databases of journal articles. Health sciences.  
International. EMBASE

Embase-based publisher Elsevier Science BV also publishes the Embase.com (<http://www.embase.com/>) database, which enables searches on Medline (with records from 1966 to present) and Embase (since 1974).

Both databases provide approximately 600,000 bibliographical references annually (2,400 records per day), with special attention to journals and publications of pharmacology.

One of the most peculiar features is that it does not duplicate the records that appear in both databases. Some 50% of records contain a link to the article with full text.

## 2. Main health science databases



The screenshot displays the EMBASE.com website interface. At the top left is the Elsevier logo and the EMBASE.com text. Below this is a navigation bar with buttons for Home, Search, Emtree Tool, Journals, and Authors. The main content area is divided into three columns. The left column contains 'Search Forms' (Quick Search, Advanced Search, Drug Search, Disease Search, Article Search), 'Search Results' (Session Results, Clipboard, Saved Clipboards, Email Alerts, Saved Searches), and 'Resources' (Info Site, EMBASE.com Forum). The middle column features a 'Quick Search' form with a search input field containing 'e.g. 'cancer gene therapy'', a 'Search' button, and a checked checkbox for 'Extensive search (mapping, explosion, as keyword)'. Below the search form is a 'Search Publications from:' section with dropdown menus for years (2006 to 2010) and a checked checkbox for 'All Years'. The right column is titled 'EMBASE.com News' and contains several announcements: a survey link, a 'RELEASE INFORMATION' about a new update on October 9th with a link to a 'release fact sheet', a link to a 'video demo of how to search Embase.com for Indexed Articles in Press', and links to request access to 'EMBASE Classic' and to sign up for the 'EMBASE.com forum'.

## EMBASE basic search form

## 2. Main health science databases

EMBASE.com

Home Search ENTREE Tool Journals Authors

Search Forms

- Quick Search
- Advanced Search
- Drug Search
- Disease Search
- Article Search

Search Results

- Session Results
- Clipboard
- Saved Clipboards
- Email Alerts
- Saved Searches

Search Tips

- Articles in this section all have a publication year. Limiting to a year range will suppress those articles.
- Use codes to specify phrases to be mapped to preferred terms.
- If you map to preferred terms without using codes, each word is mapped separately.

Advanced Search

e.g. cancer gene therapy/exp OR [(treatment OR therapy) NEAR/5 fluorouracil] ab - alternatively see our [field limits](#)

Search

Map to preferred terminology (with spell check)

Also search as free text

Include sub-terms/derivatives (explosion search)

Search terms must be of major focus in articles found

Search also for synonyms, explosion on preferred terminology

Search Publications from:

2008 to 2010 or  All Years

Records from:

EMBASE  MEDLINE

Quick Limits:

Humans  With abstract  Priority journals  Only in English  Article in Press

Animals  With molecular sequence number  With clinical trial number

Records added from [ ] to [ ]

[dd/mm/yyyy] [dd/mm/yyyy]

Advanced Limits: [Expand all](#) [Collapse all](#)

Evidence Based Medicine: Limits selected: none

Publication Types: Limits selected: none

Areas of Focus: Limits selected: none

Article Languages: Limits selected: none

Gender: Limits selected: none

Age Groups: Limits selected: none

Animal Study Types: Limits selected: none

Search

EMBASE advanced search form

## 2. Main health science databases



Databases of journal articles. Health Sciences.  
International. EMBASE

Producer: Elsevier BV.

Temporary coverage: 1974-

Geographic coverage: International (70 countries).

Subjects: Biomedicine and other areas, in particular  
pharmacology.

Volume: 10 million records. 4800 magazines.

Documentary typologies: magazine articles (95%), books,  
minutes and reports.

## 3. Other databases

### Databases of books.

At present there is no database that exhaustively collects books published around the world. Each country usually compiles its production in a national bibliography, gathered by the respective national libraries.

In the Spanish case, it is the Spanish National Bibliography, published since 1958 by the National Library, whose catalogue can be consulted at <http://www.bne.es/es/Catalogos/CatalogoBibliografico/>. A directory of national libraries around the world can be consulted at <http://exlibris.usal.es/bibesp/nacion/index.htm>.

The catalogues of university libraries are also important; as well as databases developed by national ISBN agencies and book portals, bookstores, and commercial distributors.





### 3. Other databases

Databases of books.

University library databases.

National bibliographies (National Library).

Databases of books on sale (National ISBN Agency).

Catalogues of commercial establishments.

## 3. Other databases

### Grey literature databases. Doctoral dissertations.

The dissertations published in Spain since 1976 can be consulted on the internet in the Teseo database, produced by the Ministry of Science and Innovation (<https://www.micinn.es/teseo/login.jsp>).

Doctoral theses in Xarxa (TDX) gives access and full-text consultation to the doctoral theses that have adhered to this Open Access initiative (<http://www.tesisenxarxa.net/>).

At the international level, the most specialised source for consulting theses is Dissertation Abstracts, produced by the University Microfilm International (<http://www.umi.com/>). References are arranged under the headings of a thematic classification and contain an author summary describing the details of the research. It is possible to request copies on paper and other supports of the selected theses.

Another source of interest is the Networked Digital Library of Theses and Dissertations (<http://www.ndltd.org/>), which gives access to the full text of final projects, dissertations, and doctoral theses.





### 3. Other databases

**MINISTERIO DE EDUCACIÓN, CULTURA Y DEPORTE**

**BASES DE DATOS DE TESIS DOCTORALES (TESEO)**  
CONSULTA

Rellene los campos del siguiente formulario con las palabras o frases que conozca de los documentos que desea localizar. Cuando finalice pulse en el botón **Buscar**.

Título / Resumen  
clonación

Director

Universidad

Centro de lectura

Curso desde: hasta:

Descriptor 1

Índice Y

Descriptor 2

Buscar

Borrar

?

### 3. Other databases



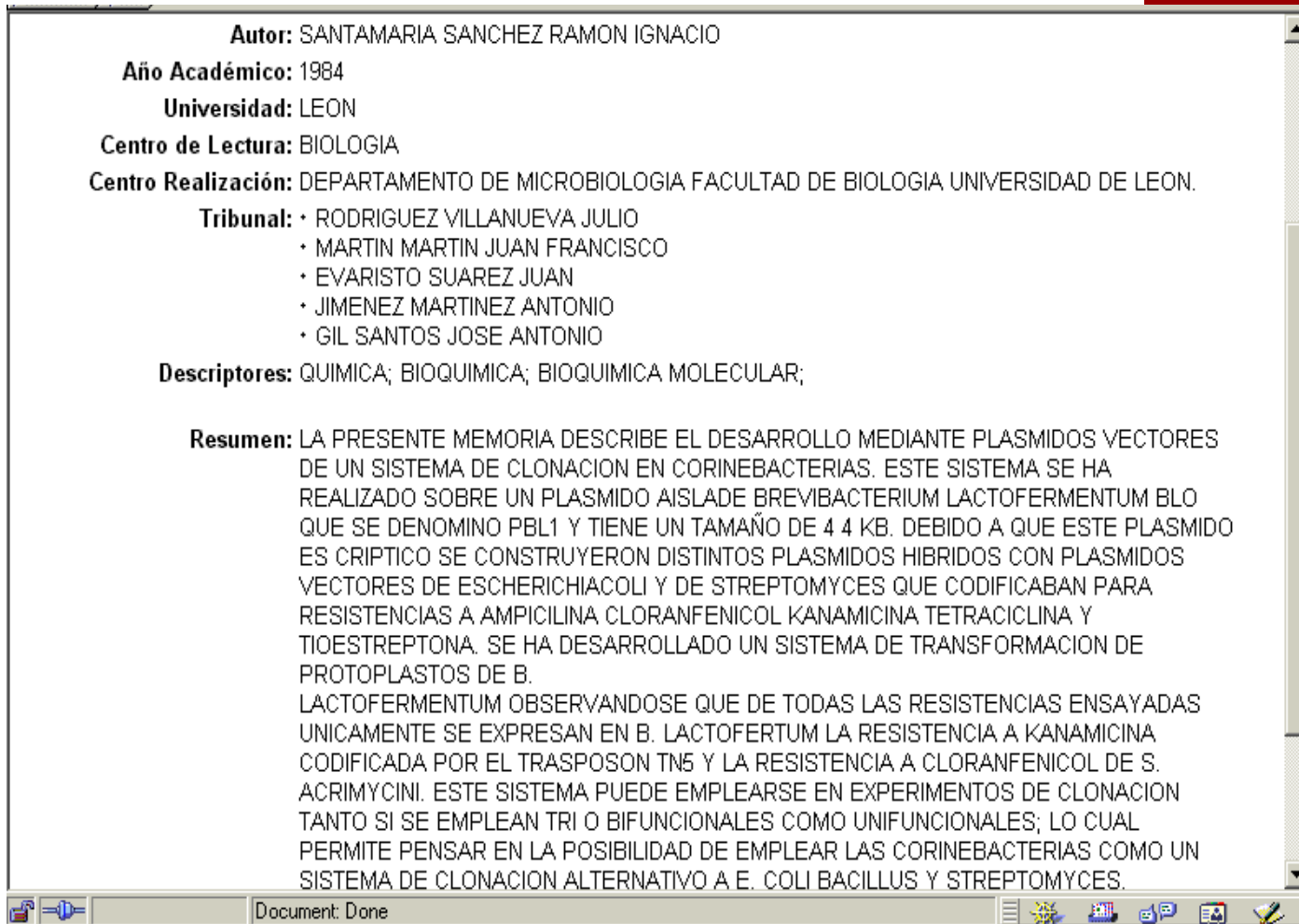
MINISTERIO DE EDUCACIÓN, CULTURA Y DEPORTE

BASES DE DATOS DE TESIS DOCTORALES (TESEO)

Documentos 1 a 20 de un total de 164.

- 1 DESARROLLO DE VECTORES DE CLONACION Y DE UN SISTEMA DE TRANSFORMACION EN BREVIBACTERIUM LACTOFERMENTUM.
- 2 CLONACION Y CARACTERIZACION DE UN GEN DE STREPTOMYCES ACRIMICINI QUE CODIFICA UNA P- AMINOBENZOICO SINTASA.
- 3 CLONACION Y EXPRESION DE GENES NIF EN LEVADURA (SALLMAROMYCES CEREVISIAE)
- 4 ESTUDIO DE LA TRANSICION NUCLEOHISTONANUCLEOPROTAMINA "IN VIVO" E "IN VITRO". CLONACION SECUENCIACION Y EXPRESION DEL GEN DE LA PROTAMINA GALINA.
- 5 BASES GENETICAS DE LA RESISTENCIA PLASMIDICA A FOSFOMICINA.
- 6 CLONACION Y SECUENCIACION DEL GEN DE LA MURAMIDASA DEL BACTERIOFAGO CP-1 DE STREPTOCOCCUS PNEUMONIAE
- 7 CLONACION Y EXPRESION EN ESCHERICHIA COLI DE UNA 1,3-1,4-B-D-GLUCANASA DE BACILLUS CIRCULANS WL-12.

### 3. Other databases



**Autor:** SANTAMARIA SANCHEZ RAMON IGNACIO

**Año Académico:** 1984

**Universidad:** LEON

**Centro de Lectura:** BIOLOGIA

**Centro Realización:** DEPARTAMENTO DE MICROBIOLOGIA FACULTAD DE BIOLOGIA UNIVERSIDAD DE LEON.

**Tribunal:** • RODRIGUEZ VILLANUEVA JULIO  
• MARTIN MARTIN JUAN FRANCISCO  
• EVARISTO SUAREZ JUAN  
• JIMENEZ MARTINEZ ANTONIO  
• GIL SANTOS JOSE ANTONIO

**Descriptores:** QUIMICA; BIOQUIMICA; BIOQUIMICA MOLECULAR;

**Resumen:** LA PRESENTE MEMORIA DESCRIBE EL DESARROLLO MEDIANTE PLASMIDOS VECTORES DE UN SISTEMA DE CLONACION EN CORINEBACTERIAS. ESTE SISTEMA SE HA REALIZADO SOBRE UN PLASMIDO AISLADE BREVIBACTERIUM LACTOFERMENTUM BLO QUE SE DENOMINO PBL1 Y TIENE UN TAMAÑO DE 4 4 KB. DEBIDO A QUE ESTE PLASMIDO ES CRIPTICO SE CONSTRUYERON DISTINTOS PLASMIDOS HIBRIDOS CON PLASMIDOS VECTORES DE ESCHERICHIACOLI Y DE STREPTOMYCES QUE CODIFICABAN PARA RESISTENCIAS A AMPICILINA CLORANFENICOL KANAMICINA TETRACICLINA Y TIOESTREPTONA. SE HA DESARROLLADO UN SISTEMA DE TRANSFORMACION DE PROTOPLASTOS DE B. LACTOFERMENTUM OBSERVANDOSE QUE DE TODAS LAS RESISTENCIAS ENSAYADAS UNICAMENTE SE EXPRESAN EN B. LACTOFERTUM LA RESISTENCIA A KANAMICINA CODIFICADA POR EL TRASPOSON TN5 Y LA RESISTENCIA A CLORANFENICOL DE S. ACRIMYCINI. ESTE SISTEMA PUEDE EMPLEARSE EN EXPERIMENTOS DE CLONACION TANTO SI SE EMPLEAN TRI O BIFUNCIONALES COMO UNIFUNCIONALES; LO CUAL PERMITE PENSAR EN LA POSIBILIDAD DE EMPLEAR LAS CORINEBACTERIAS COMO UN SISTEMA DE CLONACION ALTERNATIVO A E. COLI BACILLUS Y STREPTOMYCES.

Document: Done



# 3. Other databases

Grey literature databases. Doctoral dissertations. TDX

**TDX** Tesis Doctorals en Xarxa

Què és?  
Cerca  
• TDX  
• Global  
Estadístiques  
Novetats  
PMF  
Intranet  
Contactar ✉  
Català | English | Gallego

Autoria:   
Directoria:   
Títol:   
Universitat: Totes les universitats   
Departament:    
Matèria:    
Paraules clau:   
Text lliure:   
Any de defensa: Qualsevol   
 Distingir entre majúscules i minúscules

**CERCAR**

Participants  
Universitat de Barcelona  
Universitat Autònoma de Barcelona  
Universitat Politècnica de Catalunya  
Universitat Pompeu Fabra  
Universitat de Girona  
Universitat de Lleida  
Universitat Rovira i Virgili  
Universitat Oberta de Catalunya  
Universitat Ramon Llull  
Universitat de Vic  
Universitat Internacional de Catalunya  
Universitat Abat Oliba CEU  
Universitat de les Illes Balears  
Universitat de València  
Universitat Jaume I  
Universidad de Cantabria  
Universidad de Murcia  
Universidad de Oviedo  
Universidade da Coruña



### 3. Other databases

Grey literature databases. Doctoral dissertations.  
Dissertation abstracts

Producer: UMI - Bell & Howell Information and Learning  
Thematic scope: multidisciplinary.

Content: bibliographical information about more than  
1.5 million doctoral and undergraduate theses  
presented at more than 500 universities around the  
world. Records include author's abstract since 1980.

Chronological coverage: since 1861.

Geographical coverage: international since 1988;  
From 1861 to 1987 only the United States.

Working language: English.

## 3. Other databases

### Gray literature databases. SIGLE and GREYNET

SIGLE (System for Information on Gray Literature) was a project created in 1980 to collect and make accessible through a database the grey literature produced in European countries. Since 1985 was produced by the European Association for Grey Literature Exploitation with the support of the European Community and recently the Institut de l'Information Scientifique et Technique, raised the development of the OpenSIGLE project (<http://opensigle.inist.fr>). All the resources to the system incorporate Open Access (<http://www.dspace.org/>).

GREYNET (Grey Literature Network Service) is a project of the British Library (United Kingdom); FLICC-FEDLINK, Library of Congress (United States); INIST-CNRS (France); The New York Academy of Medicine (United States) and the National Technical Library (Czech Republic) to facilitate access to grey literature (<http://www.greynet.org>).



# 3. Other databases



**OPENSIGLE**  
SYSTEM FOR INFORMATION ON GREY LITERATURE IN EUROPE

OpenSIGLE at INST >

Buscar en DSpace  
  
Búsqueda avanzada

Principal

**Navegar**

- Comunidades & Colecciones
- Títulos
- Autores
- Por fecha

**Other**

- Ayuda
- Sobre DSpace
- Full subject category list

**Languages**  
French English Italian German

Buscar: Todo DSpace

Tipo de búsqueda: Buscar por:

AND	Palabra clave	<input type="text"/>
AND	Palabra clave	<input type="text"/>

Buscar Limpia

Powered by DSpace v1.4 -

### 3. Other databases



The image shows a screenshot of the GreyNet website. At the top, there is a blue header with the text "GreyNet" in white. Below the header is a navigation menu with several links: "GreyNet Home", "GreyNet Membership", "GreyNet Course Plan", "OpenSIGLE Repository", "GreyText Archive", "GreySource Index", "The Grey Journal", and "GreyNet Newsletter". The main content area features a quote: "GreyNet is dedicated to Research, Publication, Open Access, and Education in the field of Grey Literature". To the right of the quote is a logo for the "GL11" conference, which includes the text "Library of Congress Washington D.C., USA, 14-15 December 2009". Below the quote and logo is a large graphic with the word "GreyNet" in a green, cursive font, and "Grey Literature Network Service" in a white, sans-serif font on a black background. Underneath this graphic is a list of member institutions: "British Library (United Kingdom); INIST-CNRS (France); NYAM (United States); University of Ljubljana (Slovenia)". At the bottom, there is a "Mission Statement" section that describes the organization's goals and activities, and a definition of "Grey Literature" from a 2004 report.

**GreyNet**

Grey Literature Network Service

GreyNet Home  
GreyNet Membership  
GreyNet Course Plan  
OpenSIGLE Repository  
GreyText Archive  
GreySource Index  
The Grey Journal  
GreyNet Newsletter

*"GreyNet is dedicated to Research, Publication, Open Access, and Education in the field of Grey Literature"*

**GL11**  
Library of Congress  
Washington D.C., USA,  
14-15 December 2009

Eleventh Int. Conference on Grey Literature,  
Library of Congress, 14-15 December 2009

**GreyNet**  
Grey Literature Network Service

British Library (United Kingdom); INIST-CNRS (France); NYAM (United States); University of Ljubljana (Slovenia)

**Mission Statement**  
The Grey Literature Network Service was founded in 1992. The goal of GreyNet is to facilitate dialog, research, and communication between persons and organisations in the field of grey literature. GreyNet further seeks to identify and distribute information on and about grey literature in networked environments. Its main activities include the International Conference Series on Grey Literature, the creation and maintenance of web-based resources, a moderated Listserv, a combined Distribution List, The Grey Journal (TGJ), as well as curriculum development in the field of grey literature.

Grey Literature "Information produced on all levels of government, academics, business and industry in electronic and print formats not controlled by commercial publishing i.e. where publishing is not the primary activity of the producing body." (Luxembourg, 1997 - Expanded in New York, 2004)





# Session 5. The summary/abstract

Information science and scientific methodology  
Degree in Pharmacy 2017-18

# Context



New technologies present new challenges and require new skills.

Scientific libraries and documentation centres are converging.

Documentary summaries are of fundamental importance in the communication and transmission of information, especially in the area of science and technology.

# Introduction



The abstract is part of the documentary chain.

It is a brief and precise description of the essence of a document.

The abstract should provide those elements that encourage (or discourage) the reader to read the original document.

It provides an initial level of assimilation of the problem and offers solid information.

# Document structure



The production process of the original text is reflected in the tactical-rhetorical competition for representing the documentary information.

A document has a number of elements.

Structural or formal (title, epigraphs, illustrations, graphs, etc.)

Consubstantial (a logical-formal structure, speech, presentation, etc.)

# Primary document



Knowledge of the structure of the text can help the analyst construct a mental representation of the information.

When the structure is known, the analyst is better prepared to select the most relevant information and build internal relationships between the elements of the content.

The ideal for the production of the documentary summary would be to read the document in its entirety, but there is an objective factor: the availability of time.

Not all parts of the document have the same informative value, there are a number of elements that facilitate the preparation of the summary.

# Primary documents tipology



It should also be taken into account that there are different types of text (narrative, didactic, scientific, descriptive, conversational) that will ultimately condition the preparation of the content summary.

The final result of any summarising process is a written text that will be affected by the production process of the original document.

# The reading process



Several levels of reading have been determined:

1. Lower. Graphical-textual recognition
2. Intermediate: Lexical-syntactic access
3. Superior: understanding and internalisation of content

# The summary process



The documentary summary involves the production of a new document with two fundamental characteristics

1. Close thematic relationship with the original
2. Follows the rules of composition

Factors affecting the preparation of an abstract:

1. The original document (report, article, etc.)
2. Type of summary to be made
3. Targeted recipients
4. Working conditions and available time
5. Purpose of summary



# Tipology of summaries



According to the depth of analysis:

1. Indicative
2. Informative
3. Indicative-informative
4. Analytical
5. Critical summary
6. Structured summary

By authorship

- Author summaries
- Professional summaries

# Indicative summary



Gather the main statements of the original work without going into detailed explanations.

What is the document to which it refers, and does it provide information on the specific results.

It will be sufficient for the user to decide whether or not to consult the original.

Between 50 and 100 words.

# Informative summary



Includes all the statements of the primary document, but also provides data on methods used in the research, the use of equipment, and results of its application.

Represents a preview of the primary document.

Between 100 and 200 words.

Usually used in magazines and databases.

# Indicative-informative summary



Hybrid typology that is a synthesis of the two types previously mentioned

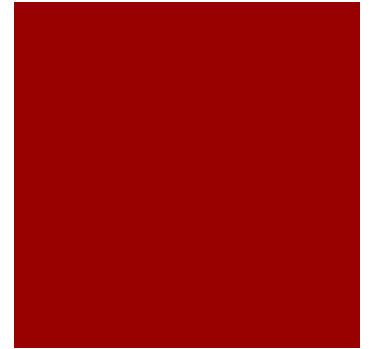
Presents the main data while including its scope and application

# Analytical summary

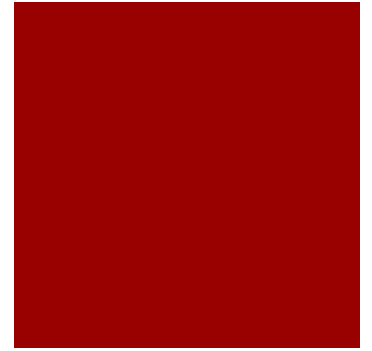
Goes beyond the level of description, offers results in detail, and in some cases could substitute the query of the original.

It is unusual.

Around 300 words



# Critical summary



Introduces a critical assessment of the original document.

Unusual because of its subjective nature

# Structured summary



Often used in the biomedical area, because it enables a quick judgement about the validity and possibility of applying the methods and results.

The structured summary establishes a series of epigraphs that can be:

- Problem statement
- Methodology
- Application results
- Conclusions

The detractors of this type of summary consider that framing the abstract within such a rigid structure greatly limits the style and exposure of the abstract.

# By the authors



## Author summaries

The author best knows the research subject, although may be unfamiliar with documentary procedures.

## Professional summaries

Ideally, the professional should know the field, understand documentary techniques, and have an ability to synthesize the dynamics of his own work (thus providing a greater coherence to abstracts in the documentary fund).



# The information scientist



Learn to be a good analyst with practice.

A good analyst learns to read and flip through a document to quickly identify the parts with relevant information.

It would be desirable for the documentalist to acquire:

- Altruistic spirit for the benefit of science
- Skill in language use
- Sense of pertinence
- Communicative skills
- Synthesis capacity
- Continuous training

# Techniques - selection



Identification and assimilation of the content may be facilitated by signs or aids in the text.

The process of understanding demands the ability to distinguish the essential from the accessory, skim details, and glean the overall aspects of the message.

# Techniques- cognitive map



Cognitive map

Preparation of the content with the following aspects:

- Identification of the main idea
- Establishment of secondary categories
- Identification of complementary details

# Techniques - procedure



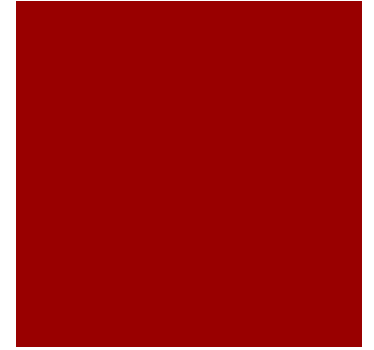
Identify and select the concepts of the text

Select the most important concept

Sort the list of concepts hierarchically

Establish relationships between concepts

# Techniques - premises



The analysis provides an identification of the original document, thus providing a precise context for its identification and subsequent retrieval (bibliographic reference).

Avoid personal or subjective appreciation.

Take into account purpose and function.

Consider its use (magazine, database, promotion, etc.)

# 1. Objectives



The purpose of the summary is:

Preparation of a concise representation of the information contained in the primary document.

Serve potential readers for consultation or for challenging the original.

Generate a new coherent, clear, precise, and faithful text of the original.

## 2. Factors



Factors that condition the preparation of the summary:

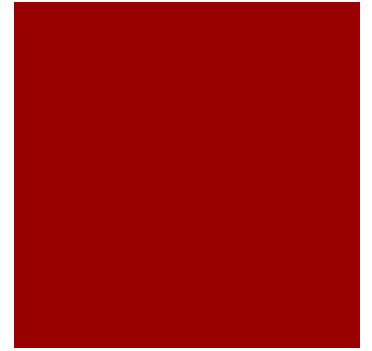
Ability of analytical abstraction.

Knowledge of the analyst (technical and specific matter, etc.)

Technological means available.

Pragmatic constraints (time, economic availability).

# 3. Procedure



Representation of the most important ideas.

Conceptualisation (transforms ideas into concepts).

Assessment (determine which ideas are the most important).

Reduction of content.

Production (summary writing).



## 4. Work procedure - analysis



Quick reading of the primary document to locate the thematic categories and the most relevant paragraphs.

Taking notes and underlining the parts of the document that best represent the content of the document.

Deep reading of the fundamental parts.

Dissociate the substance from details.

Omit information that is obvious or known.

## 4. Work procedure - synthesis



Reorganise and recompose information (main ideas, methods).

Re-read summary to filter and debug information.

If we ask questions the summary should answer the following questions.

What did the author do? What were the results? What is the conclusion?

# 5. Features

For this to be efficient it must have offer several characteristics:

Objectivity

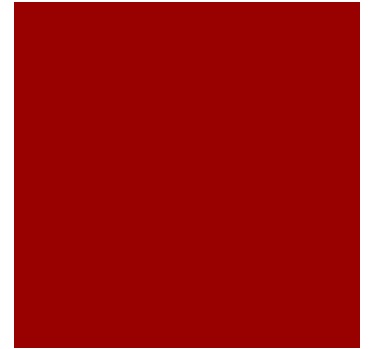
Brevity

Relevance

Clarity and coherence

Depth

Consistency



# 6. Abstract structure



## 1. Reference section

According to international standards ISO 690-19887

Help to contextualise and retrieve information

Elements: author, title, source, date, and pages.

## 2. Body indexing

This would be the summary itself.

## 3. Classification

If the system has a classification system.

## 4. Signature

Author summary

## 7. Basic abstract indicators



Guidelines that help structure the information:

Objectives and scope

Methodology

Results

Conclusions

# 8. Suggestions - content

Begin with a sentence that represents the content of the document, but does not paraphrase the title

Use the sequence: objectives, methodology, results and conclusions

What must be included depends on the nature of the document (scientific, historical, and so on)

Gather all important concepts in the document

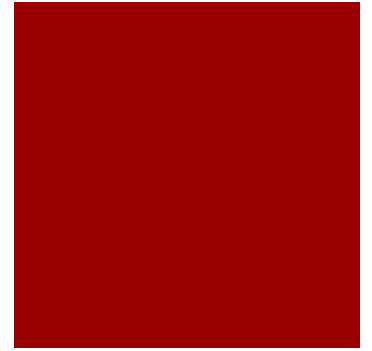
Be faithful to the original, do not introduce variations, nor interpretations

Avoid redundancy

Avoid unnecessary clarification or obvious and known information

Do not include examples

Avoid personal judgments



# 8. Suggestions - style

The abstract must be a coherent whole.

Clear, fluid, and concise style.

Do not start with 'This article, This document, The author ...'.

Do not extract verbatim phrases.

Use short phrases, but avoid the telegraphic style.

Use complete and well articulated sentences.

No not mix different verbal forms:

Indicative summary - passive and present voice

Informative summary - active voice and past tense

Use the author's vocabulary.

Do not use acronyms or abbreviations.



# **THE ISO NORM 214-1976** **(UNE norm 50-103-90)**



Locate the summary in the document header.

Bibliographic reference precedes summary.

Start with a sentence that contains the main idea of the document

A single paragraph.

Active voice and third person.

Use meaningful words that help the retrieval.



# ABSTRACT EVALUATION



Authors do not necessarily write the best abstracts.

In the task of summarising, quality, and consistency is more vague and imprecise than in other documentary tasks.

As a guideline, it must be assessed if the document contains:

- The essential points of the original
- Accurate and succinct descriptions
- Coherent and readable style
- Enables the reader to predict whether the summarised item is relevant

# SUMMARY OPERATION AND NEW TECHNOLOGIES



Summary automation

Taking advantage of new technologies

The internet



# Session 6. Preparation of bibliographies

Information science and scientific methodology  
Degree in Pharmacy 2017-18

# 1. Characteristics and constituent elements



Bibliographic references are an essential element to ensure the rigor and scientific nature of a publication.

Bibliographical reference is the source consulted and used for research, which is cited individually in relation to some element mentioned in the text.

Bibliography is the complete list of sources (printed or electronic) cited in a paper (bibliographical references). They are usually presented at the end of the paper, ordered alphabetically or sequentially.

# 1. Characteristics and constituent elements

What is a reference?

"An abbreviated reference form inserted in parentheses in the text or added as footnote, at the end of the chapter or at the end of the whole text" (UNE Standard)

The screenshot shows the Wikipedia article for "Penicilina". Several citations are highlighted with red circles: <sup>1</sup>, <sup>2</sup>, <sup>3</sup>, and <sup>4</sup>. Red arrows point from these circles to the "Referencias" section at the bottom of the page.

## Referencias

### Notas

- <sup>a</sup> Para referencias generales de esta sección, consultar [Anexo:Descubrimiento de la penicilina](#).
- <sup>b</sup> Entendiendo fermentación no en el sentido *metabólico* de la palabra, sino en el sentido biotecnológico de producción a gran escala.
- <sup>c</sup> En Estados Unidos, la presentación llamada *Bicillin C-R*, una suspensión inyectable que contiene 1,2 millones de unidades de penic por que es una dosis menor a la recomendada para el tratamiento eficaz de dicha infección. Se han cometido errores en ese país por lo empaque del Bicillin CR y CR 900/300 con la aclaratoria "No apto para el tratamiento de la sífilis".<sup>59</sup>

### Citas

- <sup>1</sup> <sup>abcdefg</sup> Prescott, L.M. (1999). *Microbiología*. McGraw-Hill Interamericana de España, S.A.U. ISBN 84-486-0261-7.
- <sup>2</sup> <sup>abcdef</sup> Cruieger, Wulf, Cruieger, Anneliese (1989). *A textbook of industrial microbiology*, 2 edición, Sunderland: Sinauer Associates. ISBN
- <sup>3</sup> <sup>ab</sup> Solensky R (2003). "Hypersensitivity reactions to beta-lactam antibiotics". *Clinical reviews in allergy & immunology* 24 (3): 201–20. doi:
- <sup>4</sup> <sup>en</sup> Enjalbert F, Rapior S, Nouguier-Soulé J, Guillon S, Amouroux N, Cabot C (2002). «Treatment of amatoxin poisoning: 20-year retrospective :
- <sup>5</sup> <sup>en</sup> Sokoloff, Boris (1945). *The Story of Penicillin*. Ziff-Davis.
- <sup>6</sup> <sup>en</sup> Brown, Kevin (2004). *Penicillin Man: Alexander Fleming and the Antibiotic Revolution*. ISBN 0-7509-3152-3.
- <sup>7</sup> <sup>en</sup> «The Clarence Memorial Wing, St. Mary's Hospital [en](#)». *Br Med J*. Vol. 2. n.º 1669. PMID 2421595.
- <sup>8</sup> <sup>en</sup> Glynn, AA (2006). «Museum review: Alexander Fleming Laboratory Museum. St Mary's Hospital, Praed Street, London W2 1NY, UK [Curator
- <sup>9</sup> <sup>en</sup> Volcy, Charles (2004). *Lo malo y lo feo de los microbios*, pg. 84. Unibiblos. ISBN 958-701-400-6.
- <sup>10</sup> <sup>en</sup> Calvo, A (2006). «Ehrlich y el concepto de "bala mágica" ». *Rev Esp Quimioterap*. Vol. 19. n.º 1.

# 1. Characteristics and constituent elements.

## What is a bibliography?

Set of bibliographical references arranged at the end of a document

### Referencias [editar]

1. ↑ ITIS. «[Aves](#)» (en inglés). Consultado el 6 de marzo de 2009.
2. ↑ Brands, Sheila (14 de agosto de 2008). «[Systema Naturae 2000 / Classification, Class Aves](#)». *Project: The Taxonomicon*. Consultado el 6 de marzo de 2009.
3. ↑ Ver por ejemplo Richard O. Prum "Who's Your Daddy" *Science* 322 1799-1800, que citan también a R. O. Prum, *Auk* 119, 1 (2002).
4. ↑ Paul, Gregory S. (2002). «Looking for the True Bird Ancestor», *Dinosaurs of the Air: The Evolution and Loss of Flight in Dinosaurs and Birds*. Baltimore: John Hopkins University Press, pp. 171–224. ISBN 0-8018-6763-0.
5. ↑ Norell, Mark; Mick Ellison (2005). *Unearthing the Dragon: The Great Feathered Dinosaur Discovery*. New York: Pi Press. ISBN 0-13-186266-9.
6. ↑ Turner, Alan H., Pol, Diego, Clarke, Julia A., Erickson, Gregory M., and Norell, Mark (2007). «A basal dromaeosaurid and size evolution preceding avian flights» (PDF). *Science* 317: 1378–1381. DOI:10.1126/science.1144066 [PMID 17823350](#). Consultado el 31 de marzo de 2009.
7. ↑ Xing, X., Zhou, Z., Wang, X., Kuang, X., Zhang, F., and Du, X. (2003). «Four-winged dinosaurs from China». *Nature* 421 (6921): 335–340. DOI:10.1038/nature01342
8. ↑ Thulborn, R.A. (1984). «The avian relationships of *Archaeopteryx*, and the origin of birds». *Zoological Journal of the Linnean Society* 82: 119–158. DOI:10.1111/j.1096-3642.1984.tb00539.x
9. ↑ Kurzanov, S.M. (1987). «Avimimidæ and the problem of the origin of birds». *Transactions of the joint Soviet - Mongolian Paleontological Expedition* 31: 31–94.
10. ↑ Heilmann G. (1927). *The Origin of Birds*. Nueva York: Dover Publications.
134. ↑ Bélsisle, Marc, Jean-François Giroux (August de 1995). «Predation and kleptoparasitism by migrating Parasitic Jaegers» (PDF). *The Condor* 97 (3): 771–781. DOI:10.2307/1369185. Consultado el 19 de abril de 2009.
135. ↑ Vickery, J. A., M. De L. Brooke (May de 1994). «The Kleptoparasitic Interactions between Great Frigatebirds and Masked Boobies on Henderson Island, South Pacific» (PDF). *The Condor* 96 (2): 331–40. DOI:10.2307/1369318. Consultado el 19 de abril de 2009.
136. ↑ Hiraldo, F.C., J.C. Blanco y J. Bustamante (1991). «Unspecialized exploitation of small carcasses by birds». *Bird Studies* 38 (3): 200–07.
137. ↑ Engel, Sophia Barbara (2005). *Racing the wind: Water economy and energy expenditure in avian endurance flight*. University of Groningen. ISBN 90-367-2378-7. Consultado el 19 de abril de 2009.
138. ↑ Tieleman, B.J., J.B. Williams (1999). «The role of hyperthermia in the water economy of desert birds». *Physiol. Biochem. Zool.* 72: 87–100.
139. ↑ Schmidt-Nielsen, Knut (1960). «The Salt-Secreting Gland of Marine Birds». *Circulation* 21: 955–967. Consultado el 19 de abril de 2009.
140. ↑ Hallager, Sara L. (1994). «Drinking methods in two species of bustards» (PDF). *Wilson Bull.* 106 (4): 763–764. Consultado el 19 de abril de 2009.
141. ↑ MacLean, Gordon L. (1983). «Water Transport by Sandgrouse». *BioScience* 33 (6): 365–369.
142. ↑ Klaassen, Marc (1996). «Metabolic constraints on long-distance

# 1. Characteristics and constituent elements.

## PRECISIÓN CONCEPTUAL

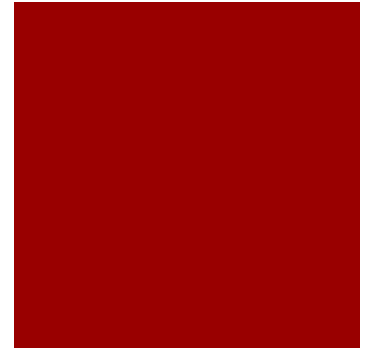
Difference between REFERENCE and CITATION

A bibliographic reference is the set of data that describes the source of information used to carry out the work that is being presented (bibliographical references refer to previous works).

A citation is the mentions that a scientific work receives in later papers (although it does not have to have been published).

# 1. Characteristics and constituent elements

The purpose of bibliographical references is to indicate the sources of ideas, techniques, statistics, etc., taken from previous work.



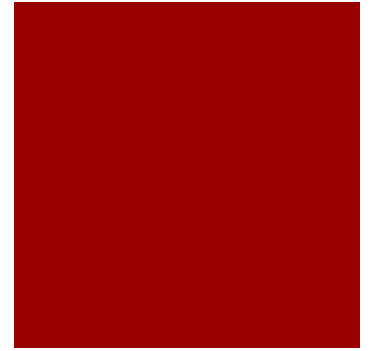


# 1. Characteristics and constituent elements

It is important to refer to these sources for several reasons:

Science is a 'cumulative' process and bibliographical references serve to indicate the existence of additional information that may be of interest to the reader.

From an ethical point of view, every author has a responsibility to indicate sources of information and methods from other research.



# 1. Characteristics and constituent elements.

Rosa Sancho (1990) lists different reasons to explain the bibliographical references included in scientific works:

- Tribute to pioneers.
- Accredited or confirm related work.
- Develop ideas, concepts, or methods initiated in previous work.
- Support the conclusions of the citation author.
- Identify methods, equipment, equations, etc.
- Compare a method related to a phenomenon that is considered analogous.
- Demonstrate that previous work is known.
- Correct or criticise previous or own work.
- Corroborate data, physical constants, etc.

In addition, there are other reasons not related to the needs of the scientific method.



## 2. Styles of presentation of bibliographic references



The elements of a bibliographic reference (author, title, year of publication of the work, pagination, etc.) must be clearly identified and maintained uniformly throughout the work.

The aim is for readers to quickly and easily locate the source they are referring to.

## 2. Styles of presentation of bibliographic references

### Main elements of a bibliographic reference



#### **BOOK:**

**AUTHOR/S** (FAMILY NAME, Name). **Title**. Edition. **Place of publication:**  
**Editor** (Editorial), **Publication year**.

#### **JOURNAL ARTICLE:**

**AUTHOR/S** (FAMILY NAME, Name). **Year** (in brackets). **TITLE** (of the article). **JOURNAL TITLE**. **VOLUME (ISSUE):PAGES**.

**The presentation of these elements varies according to the type of document and the style of presentation.**

## 2. Styles of presentation of bibliographic references

### Examples of printed book references:

APA style:

Sternberg, R. J. (1996). Investigar en Psicología. Una guía para la elaboración de textos científicos dirigida a estudiantes, investigadores y profesionales. Barcelona: Paidós.

Vancouver style:

Murray PR, Rosenthal KS, Kobayashi GS, Pfaller MA. Medical microbiology. 4th ed. St. Louis: Mosby; 2002.

---

### Example of printed journal article references:

APA style:

Alcain Partearroyo, M.D. y Carpintero, H. (2001). La Psicología en España a través de las revistas internacionales: 1981-1999. *Papeles del Psicólogo*, 78, 11-20.

Vancouver style:

Halpern SD, Ubel PA, Caplan AL. Solid-organ transplantation in HIV-infected patients. *N Engl J Med*. 2002 Jul 25;347(4):284-7.

## 2. Styles of presentation of bibliographic references



The presentation of bibliographical references meet various norms or guidelines widely disseminated through 'Style books' of bibliographical references. Some of the main norms are :

- Standard ISO 690 and 690-2.
- APA Manual (American Psychological Association Standards).
- Harvard Standards (Harvard University).
- Chicago Style Manual (Chicago University).
- Modern Language Association (Modern Language Association of America).
- Vancouver Style (Medical Journals).

# 3. The Vancouver style

## ► The Vancouver norms.

In 1978 a small group of directors of medical journals met in Vancouver, Canada, to set guidelines for the format of manuscripts submitted to their journals. This group, known as the 'Vancouver Group', developed uniformity requirements for manuscripts submitted to biomedical journals. Subsequently, the International Committee of Directors of Medical Journals was created, which meets annually and has developed different requirements for the submission of manuscripts to biomedical journals, based on an ANSI (American National Standards Institute) style standard, which have included formats for bibliographic references developed by the National Library of Medicine.

**Last edition:**

**<http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=citmed>**

### 3. Vancouver style



In the document 'International Committee of Medical Journal Editors (ICMJE) Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Sample References' are examples of citations with different documents

[http://www.fisterra.com/recursos\\_web/mbe/vancouver.asp](http://www.fisterra.com/recursos_web/mbe/vancouver.asp)



# Example of book



Authors



Padrini F, Lucheroni M. T. El gran libro de los aceites esenciales.  
Barcelona: De Vecchi; 1996.

Title



Place of  
publication

Editorial

Publication  
date



# Example of journal article



Author



Title



Diez Jarilla JL, Ruidos adventicios respiratorios: factores de confusión. Med. Clin (Barc) 1997; 109 (16): 632-634.

Journal title



Publication date



Volume



Issue



Number of pages



# Example of doctoral thesis



Author

Title

Muñiz García J. Estudio transversal de los factores de riesgo cardiovascular en población infantil del medio rural gallego. [Tesis doctoral]. Santiago: Servicio de Publicaciones e Intercambio Científico, Universidad de Santiago; 2004.

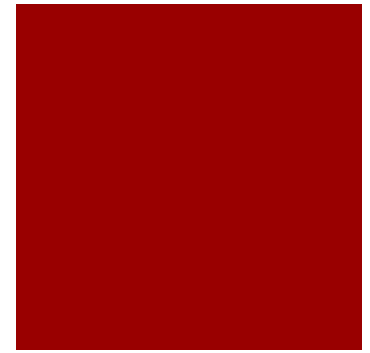
Institution

Publication date

Place of publication



# Example of conference presentation



Author

Title

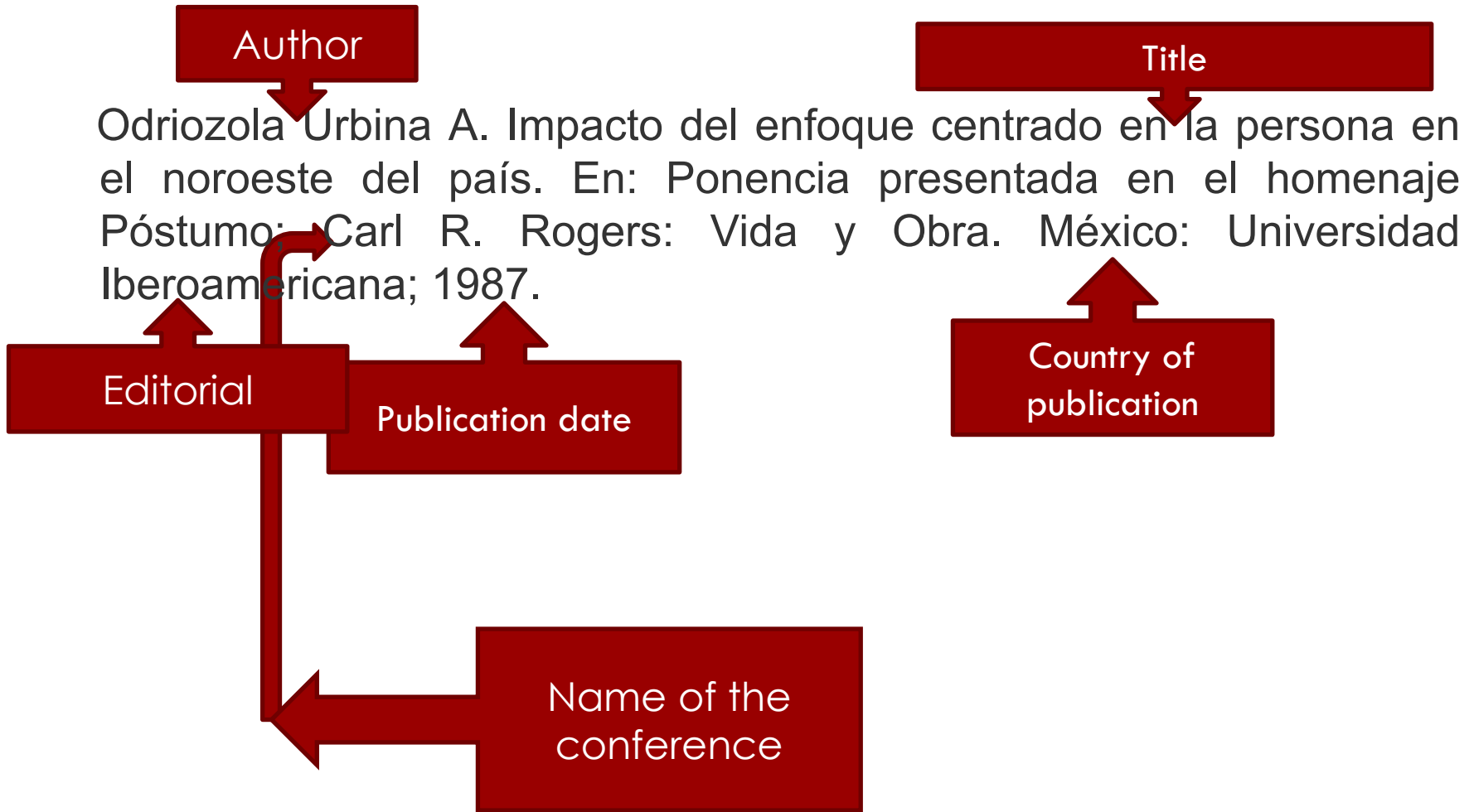
Odriozola Urbina A. Impacto del enfoque centrado en la persona en el noroeste del país. En: Ponencia presentada en el homenaje Póstumo: Carl R. Rogers: Vida y Obra. México: Universidad Iberoamericana; 1987.

Editorial

Publication date

Country of publication

Name of the conference



# Example of electronically consulted article



Author

Title

Journal title

Aleixandre R. La Medicina hoy. Papeles Médicos [en línea]. 2002. [fecha de acceso 5 de julio de 2009]; N°.85 URL disponible en: <http://www.reli.org>

Date of retrieval

Issue

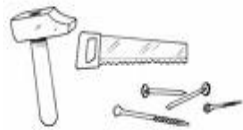
Availability and access

Type of media

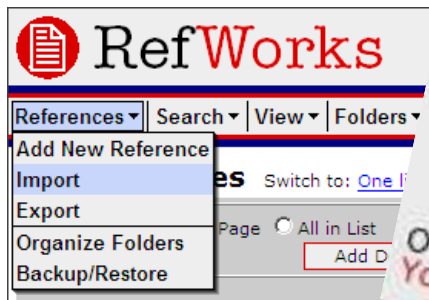
Publication date

## 4. Bibliographic reference manager software

- ▶ There are different tools or programs to manage bibliographical references, quotations, and bibliography in an automated manner .



The most used are: Refworks (University of Valencia), Procite, Reference Manager, EndNote ...





Home / Servicios que ofrecemos / Gestión de la bibliografía personal



→ Información general

→ Servicios que ofrecemos

→ Bibliotecas y archivos

→ Catálogo

→ Recursos de información

→ Salas de lectura

→ Préstamo y carnet

→ Préstamo interbibliotecario

→ Préstamo intercampus

→ Formación de usuarios

→ Suministro de artículos

→ Refworks

→ Soporte informático

→ Compras y suscripciones

→ Pregunta al bibliotecario

→ Reproducción de documentos

→ Consulta de tesis

→ Zona Wi-fi

→ Préstamo de portátiles

→ Servicios para personas con discapacidad

→ Carta de Servicios

## Servicios que ofrecemos

### RefWorks: gestión de la bibliografía personal



RefWorks

Nuevas funcionalidades 2008

TUTORIAL Polimedia de Albert Navarro  
(U. Autònoma de Barcelona)

Nuevas funcionalidades 2009

NUEVO

Manténte informado!!!  
User\_RW: lista de correo para los usuarios de RefWorks de la UV

- › Acceso a Refworks
- › Qué es Refworks
- › Cómo acceder a Refworks
- › Acceso a Refworks desde fuera de la Universitat
- › Acceso al área compartida RefShare
- › Material de apoyo
- › Sesiones de presentación/formación en la Universitat
- › Programación de Webinars (sesiones de formación online)
- › Acceso a la sesión de formación avanzada online (Sesión grabada 8-11-2007)  
(Requiere la instalación de ARF Player)
- › Acceso a la sesión de formación sobre Write N Cite III (Sesión grabada 17-06-2008)  
(Requiere la instalación de ARF Player)
- › Acceso a sesiones grabadas: RefShare, RefWorks nivel avanzado y RefWorks nivel básico.  
(Requiere la instalación de ARF Player)

#### › Qué es Refworks

RefWorks es una herramienta para gestionar referencias bibliográficas en web que permite:

- Crear una base de datos bibliográfica para almacenar referencias importadas de bases de datos bibliográficas o añadidas manualmente.



# Session 7. Internet and scientific literature

Information science and scientific methodology  
Degree in Pharmacy 2017-18



# 1. Definition and concept of open access to information

## DEFINITION

By 'open Access' to this literature we mean its free availability on the public internet, allowing any user to read, download, copy, distribute, print, search, or use for any legal purpose, without any financial, legal, or technical barrier, outside of those that are inseparable from access to the internet itself. The only limitation in terms of reproduction and distribution and the only role of copyright in this domain should be to give authors control over the integrity of their work and the right to be properly recognized and cited.

APEI Open Access Report, 2008



# 1. Definition and concept of open access to information



Traditionally, the concept of open archive is used for a document deposited on a server that is accessed freely.

The reason for using this terminology (open file) is because the original goal was to store (archive) documents.

The term 'open' responds to both its computer architecture, accessible, and integrable from any machine, and the public character of these initiatives.

## **2. Open access to scientific information in health sciences**



24,000 journals

2.5 million research articles per year

<http://www.ulrichsweb.com/ulrichsweb/analysis/>

## 2. Open access to scientific information in health sciences



FOR WHAT?

Visibility

Use

Understanding

Impact

Progress

## 2. Open access to scientific information in health sciences



### CHRONOLOGY

1966: Educational Resource Information Center (ERIC) Medline

1989: First refereed journals: Psycholoquy (S. Harnad) and Surfaces (Guedon)

1991: First thematic repositories in physics (ArXiv) and Mathematics (mp arc)

1993: CERN announces that free web technology can be used

1994: Steven Harnad's First Self-Archiving Proposal

1996: NDLTD: Networked Digital Library of Theses and Dissertations (Virginia Polytechnic Institute)

1997: SciELO (Bireme)

## 2. Open access to scientific information in health sciences



### CHRONOLOGY OF THE OPEN ACCESS MOVEMENT

- 1997: PubMed launched and Medline is free to join
- 1998: Scholarly Publishing and Academic Resources Coalition (SPARC) (ARL)
- 1999: Open Archives Initiative (OAI)
- 2000: Eprints at the University of Southampton
- 2001: Budapest Open Access Initiative (BOAI)
- 2003: Bethesda Declaration
- 2003: Berlin Declaration on Open Access in the Sciences and Humanities
- 2003: PLoS Biology
- 2004: PLoS Medicine
- 2005: Berlin 3 Open Access: Feb 28th-Mar 1st, 2005, University of Southampton, UK

## 2. Open access to scientific information in health sciences



In the development of the international initiatives in favour of free access, three working meetings are of special interest, and three important declarations have been drawn up and on which many local projects are based:

- 2002: Budapest Initiative for Open Access.
- 2003: Bethesda Statement on Open Access Publication.
- 2003: Berlin Declaration on Open Access to Knowledge in Sciences and Humanities.

## 2. Open access to scientific information in health sciences



These statements promulgated that a publication may be considered open access when it meets the following conditions:

- Free access to copy, use, distribute, transmit a document, as well as to make derivative documents, while respecting intellectual property.
- A copy of the document is deposited in an open archive (repository) that complies with the technical standards and is supported by a scientific, academic, institutional or open access promotion body.



## 2. Open access to scientific information in health sciences

Normalisation has played a key role in the creation of open access repositories, since it is essential to have a standard to be able to exchange the digital information contained in different open files.

The objective was to start from the same schema of description of the information in order to be able to exchange the data. This was achieved with the OAI-PMH protocol, developed by the Open Archives Initiative and complied with computer applications designed for the launch of repositories and digital collections.



## 2. Open access to scientific information in health sciences



The purpose of OAI-PMH is to provide a metadata document that reveals:

- Content
- Location
- Public nature of the document

The documents with OAI are stored in a repository that allows access and consultation of full text. Repositories that use OAI-PMH enable their open files to be recovered from harvesters, which act as meta-browsers.

## 2. Open access to scientific information in health sciences

The Budapest Open Access Initiative (BOAI) emerged from a small but vital meeting convened in Budapest by the Open Society Institute (OSI) on 1 and 2 December 2001. The purpose of the meeting was to accelerate the progress of the international effort to make research articles in all academic areas freely available on the internet.

This statement constitutes an important impetus for the free availability of the full text of articles with reference to the internet to search, read, download, distribute, print, index, and any other legitimate purpose.

Two ways of implementation:

- Self-archiving by authors in institutional repositories.
- Publication of the work in an open access journal.



## 2. Open access to scientific information in health sciences

The Bethesda Declaration of 15 April 2003 specifies how copyright should be regulated in the Open Access framework, and provides that copyright will be guaranteed under licenses that govern the terms and conditions of access.

It also establishes that documents must be deposited in well-established repositories that have a standard procedure, departing from the option that Budapest gave for documents to be deposited on personal pages or digital files (thereby compromising interoperability and long-term preservation).



## **2. Open access to scientific information in health sciences**



The Berlin Declaration was adopted on 22 October 2003 by representatives of various European institutions convened by the Max Planck Society.

The author guarantees the free right to access a scholarly work, as well as the license to copy, use, distribute, transmit and display it publicly and to make and distribute derivative works, for any responsible purpose, all subject to the appropriate recognition of authorship.

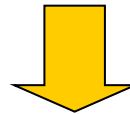
A full version of the work and license mentioned above is deposited in at least one online repository using acceptable technical standards, supported and maintained by an academic institution, or learned society, which ensures unrestricted distribution, interoperability, and long-term storage.

## 2. Open access to scientific information in health sciences



### ■ Publication in an open access journal

([www.doaj.org](http://www.doaj.org))



Gold Open Access

### ■ Publication in a conventional journal and deposit in an institutional repository



Green Open Access

## 2. Open access to scientific information in health sciences

At present, the movement for open access to publications can be seen in several ways:

- Editing electronic journals with open or free access. The user accesses the website of the magazine to consult the summaries and full text of articles.
- Creation of repositories, whether individual, institutional or specialised, where documents are stored.



# Limited access: limited research outcomes



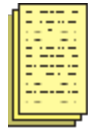
12-18 Months

## Cycle of impact

### begins:

Research done

Researchers write pre-refereed work 'Pre-Print'



Submitted to the journal



'Pre-Print' reviewed by peer committee



'Pre-Print' revised by the authors of article

Refereed 'Post-Print' accepted, certified, published by journal

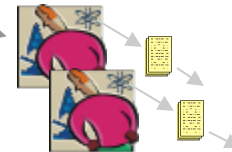


Researchers can access the 'post-print' if their university has a subscription to the journal



New cycles of impact: new research is made

Harnad, 2005





# Self-archiving maximizes access and impact to research



12-18 Months

**Cycle of impact begins:**  
Research done

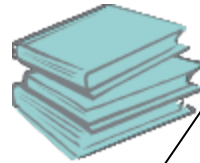


Researchers write pre-refereed work 'Pre-print'



**Pre-print** is self-archived in the Institutional Archive

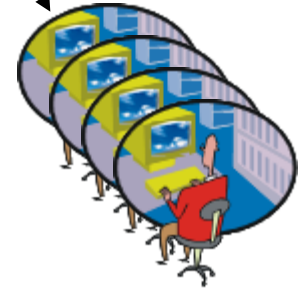
Submitted to the journal



'Pre-print' reviewed by Peer Committee  
'Pre-print' revised by the authors of article



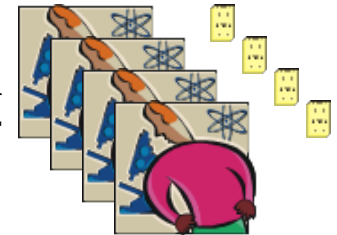
**Post-print** is self-archived in the institutional archive



Refereed 'Post-print' accepted, Certified, published by journal



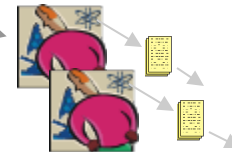
**New cycles of impact:**  
The impact of self-archived research is greater (and faster) because access is maximised (and accelerated)



Researchers can access the 'post-print' if their university has a subscription to the journal



**New cycles of impact:** new research is being built



**Harnad, 2005**

## 2. Open access to scientific information in health sciences



- Digital documentation. All files that are available for free access must be in electronic formats.
- Telematic access. The documents are deposited on servers that are accessed through the internet.
- Public use. There must be the possibility of reading, downloading, copying, printing, and distributing the documents, with the intellectual property conditions that the author has reserved for his work.
- Standard files. Standards must be met in the identification of digital documents, description of information, data collection and exchange of information.
- Cooperative initiatives. Participation in collective projects, either from an institution or from a thematic network
- As well as adherence to initiatives that advocate free communication of scientific production.

## 2. Open access to scientific information in health sciences



### Directory of Open Access Repositories (OpenDOAR)

*OpenDOAR*

<http://www.opendoar.org>

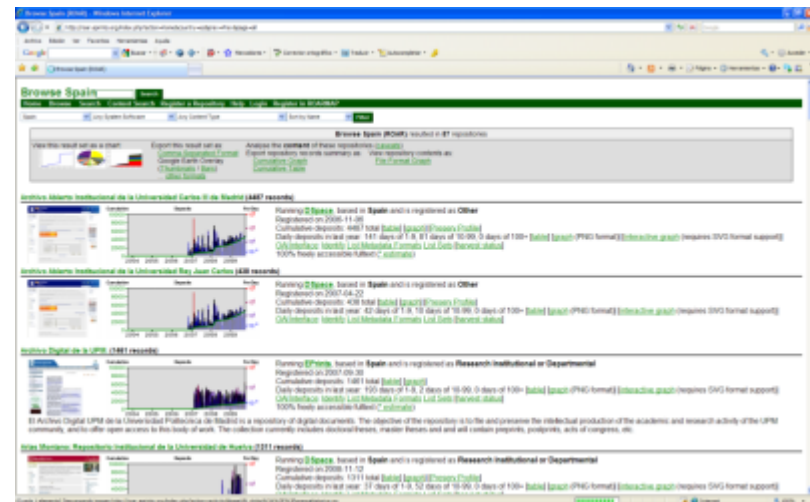
- Directory with more than 1500 repositories.
- Aims to collect all existing repositories in the world.
- Allows consultation by country, type of documents, or materials.
- Coordinated by the University of Nottingham.
- Linked to the Directory of Open Access Journals (DOAJ)  
<http://www.doaj.org>

## 2. Open access to scientific information in health sciences

### Registry of Open Access Repositories (ROAR)

<http://roar.eprints.org>

- Created in 2004, it brings together more than a 1000 registered files.
- Repositories all over the world.
- Multiple possibilities for consultation.
- Facilitates knowing the number of items deposited in the different inventory repositories.
- Provides graphical statistical information

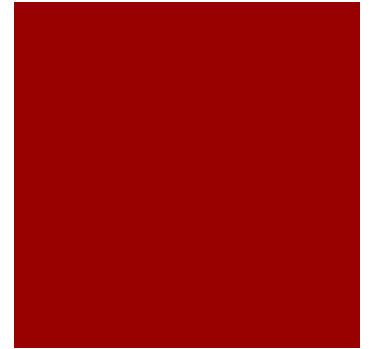


## 2. Open access to scientific information in health sciences

Openarchives.eu

<http://www.openarchives.eu>

- Directory of open files and collector.
- Created in 2006 by The University of Illinois OAI-PMH Data Provider Registry <http://gita.grainger.uiuc.edu/registry/>



## 2. Open access to scientific information in health sciences



Red de Revistas Científicas de América Latina y El Caribe, España y Portugal (Red ALyC)



<http://redalyc.uaemex.mx>

- Links to free electronic journals.
- It gathers 550 magazines and more than 115,000 records

## 2. Open access to scientific information in health sciences



SciELO



<http://www.scielo.org>

- Platform for access to multidisciplinary scientific journals and health sciences.
- It provides access to the full text of more than 600 journals and 200,000 articles.

## 2. Open access to scientific information in health sciences



TDR - Tesis doctorales en red



<http://www.tesisenred.net>

- Repository of doctoral theses of Spanish universities.
- Facilitates access to the full text.
- Part of the Networked Digital Library of Theses and Dissertations (NDLTD) <http://www.ndltd.org>.
- Includes a search engine to locate theses in other Spanish repositories.



## 2. Open access to scientific information in health sciences



### Other Spanish repositories:

Dialnet: <http://dialnet.unirioja.es>

RACO (Revistas catalanas): <http://www.raco.cat>

Digital CSIC: <http://digital.csic.es>

E-Prints U. Complutense Madrid : <http://eprints.ucm.es>

U. Politècnica de Catalunya Commons: <https://e-prints.upc.edu>

GREDOs (USAL): <http://gredos.usal.es>

