IPR4SC

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Test report on Minesoft's Orange Book

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1. Introduction

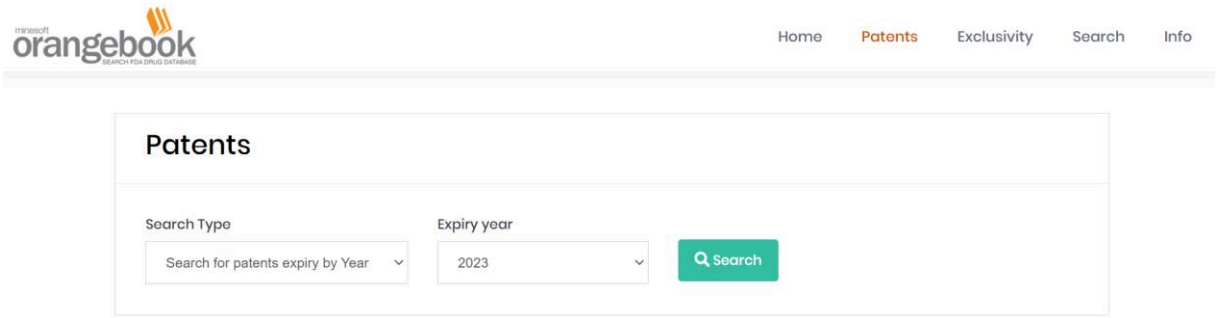
The present document gives a brief description of the major functionalities of Orange Book, a free access patent analytics tool from Minesoft.

Orange Book is a free resource for searching within the Food and Drug Administration's approved drug database which makes it a very specific tool for research within the pharmaceutical industry. The tool does not require any kind of registration to login and all the features are completely free.

The tool provides some minimal analytics functionality from the search results.

2. Home page

Once the user has logged in, the tool displays the home page (shown in the next figure). The user can choose what to search for among patents, companies, litigations, trademarks and NPL (Non Patent Literature). Furthermore Innography gives the possibility to manage and share the retrieved documents by using the 'My Portfolio' and 'DocShare' options.



A search bar finds place in the center of the screen. Here the user can select among different search modalities: keyword-based, by publication number, by application number, by accession number, and sematic search. Users interested in chemical compounds can exploit the 'Chemical' option. There is also the possibility to build searches with a guided procedure by clicking on the 'Use Search Builder' button.

3. Patent search

The tool allows for a patent **search function**, an **exclusivity function** and a **quick search function**.

The **patent search** section allows users to search within the patent database according to three different predefined search criteria, which are by applicant, by year, or by pharmaceutical companies.

The **exclusivity** function is specifically related to the pharmaceutical industry and refers to certain delays and prohibitions on approval of competitor drugs. The tab provides analogous information and

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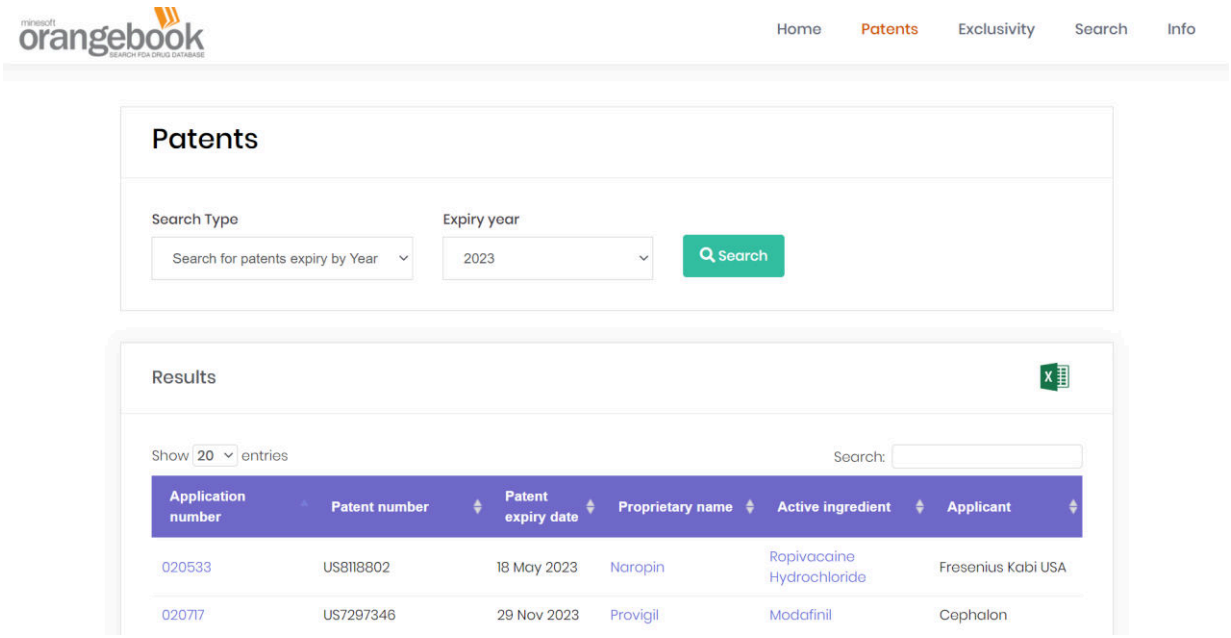
features to the previous one. An additional feature that this research provides is the direct link to the U.S. national library of medicine[1] database in which relevant information related to the proprietary are shown.

The **search tab** allows a two-factor search using Boolean operators. The factors are applicant, proprietary name, application number and active ingredient while as operators one can choose between conjunction, disjunction and negation.

The tool does not allow patent searching by either keywords query or textual input, the only search allowed is based on one of three predefined inputs:

1. The search for patents expiry by company: choosing the company name from the list of companies in the database (example: Novartis) the tool shows a list of patents with Novartis as the assignee.
2. As additional output, the tool provides a trend in patent expiration by year. The search for patents expiry by year (example: 2023).
3. The patent number search allows users to search for a patent by providing the exact patent number as input (please note that depending on the syntax, the patent number might not be recognized).



The list of patents provides some metadata related to each document such as the application number, the patent number, the patent expiry date, the proprietary name, the active ingredient and the applicant.

In terms of **displayed information,** in case of search by company, beyond the patent list, the trend of the company's patents based on their future expiration is presented.

[1] https://www.clinicaltrials.gov/ct2/home

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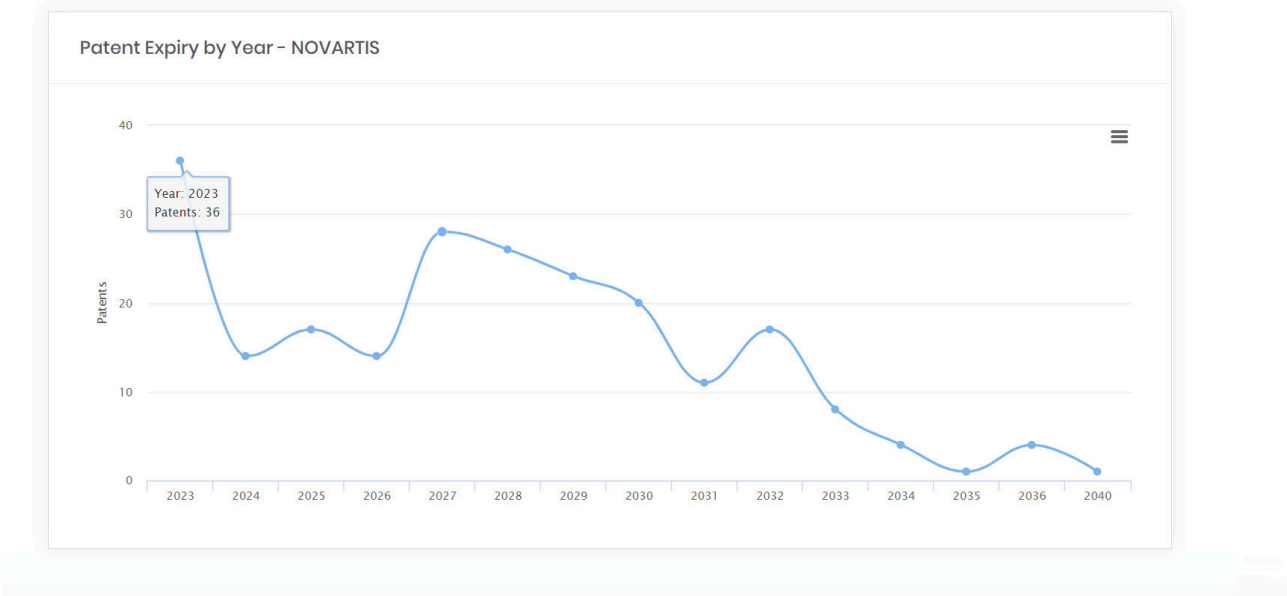
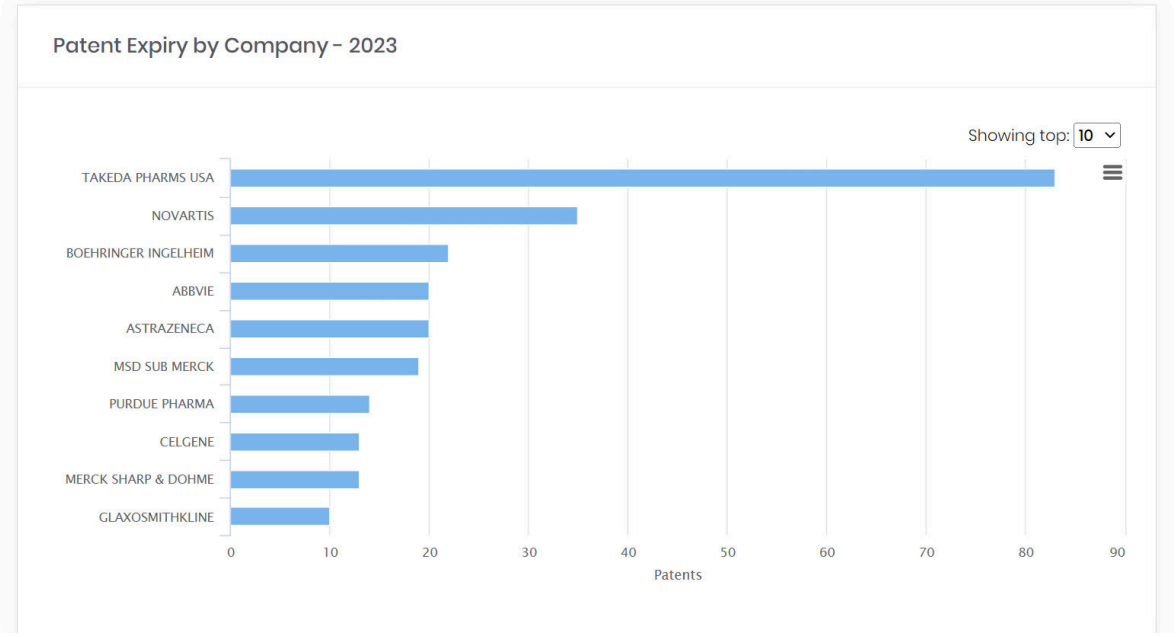


While in case of search by year a histogram representation of the distribution of the number of patents expiring in 2023 aggregated by company is presented.



The tool allows users to download the entire patent set (Excel document). Please note that for the test we made, the list generated consisted of **500 results**: a threshold on the number of documents is most likely to be applied as in different databases the same search provides a higher number of documents, i.e. more than 220k results.

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	A	B	C	D
1	Minesoft OrangeBook | Search by other criteria - novartis or norvartis			
2	**Application number**	**Proprietary name**	**Active ingredient**	**Applicant**
3	003240	Metandren	Methyltestosterone	Novartis
4	005151	Percorten	Desoxycorticosterone Acetate	Novartis
5	005914	Pbz	Tripelennamine Citrate	Novartis
6	005914	Pbz	Tripelennamine Hydrochloride	Novartis
7	006008	Mesantoin	Mephenytoin	Novartis
8	006203	Heavy Solution Nupercaine	Dibucaine Hydrochloride	Novartis
9	006403	Priscoline	Tolazoline Hydrochloride	Novartis
10	006620	Cafergot	Caffeine; Ergotamine Tartrate	Novartis
11	008278	Regitine	Phentolamine Mesylate	Novartis
12	008303	Apresoline	Hydralazine Hydrochloride	Novartis
13	008319	Butazolidin	Phenylbutazone	Novartis
14	008492	Antrenyl	Oxyphenonium Bromide	Novartis
15	008822	Percorten	Desoxycorticosterone Pivalate	Novartis
16	009000	Cafergot	Caffeine; Ergotamine Tartrate	Novartis
17	009087	Hydergine	Ergoloid Mesylates	Novartis
18	009115	Serpasil	Reserpine	Novartis
19	009215	Rautensin	Alseroxylon	Novartis
20	009282	Cedilanid-D	Deslanoside	Novartis
21	009296	Serpasil-Apresoline	Hydralazine Hydrochloride; Reserpine	Novartis
22	009434	Serpasil	Reserpine	Novartis
23	009436	Acylanid	Acetyldigitoxin	Novartis
24	010187	Ritalin	Methylphenidate Hydrochloride	Novartis
25	010533	Pbz-Sr	Tripelennamine Hydrochloride	Novartis
26	011556	Anturane	Sulfinpyrazone	Novartis
27	011793	Esidrix	Hydrochlorothiazide	Novartis
28	011808	Mellaril	Thioridazine Hydrochloride	Novartis

Clicking on Application Number more detailed information are shown:

FDA Application Number: 020533 (001)

Proprietary Name	NAROPIN
Active Ingredient	ROPIVACAINE HYDROCHLORIDE
Applicant	Fresenius Kabi USA
Route / Dosage form	SOLUTION;INJECTION
Strength	20MG/10ML (2MG/ML)
Prescription / OTC	Prescription
Date of approval	1 May 1998
Reference listed drug	Yes
TE code	AP

Please note that the tool does not allow to visualise the entire patent document, but metadata only.

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