

# WORLD WIDE APPROVED DRUGS: FROM BIG BIOMEDICAL DATA TO GLOBAL SMALL MOLECULE DRUG DATABASE

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## IUPHAR/BPS Guide to PHARMACOLOGY

An expert-curated resource of pharmacological targets and the substances that act on them

LONG ISLAND UNIVERSITY

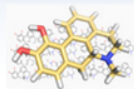
CRIB

Clinical Drug Experience Knowledgebase



## DrugCentral 2023

2022 Update-Veterinary Drugs & Uses



### SWEETLEAD Database

Molecular structures, and associated identifying information, for the globally approved medicines, illegal drugs, and herbal extracts.



### KEGG DRUG Database



### Inxight Drugs

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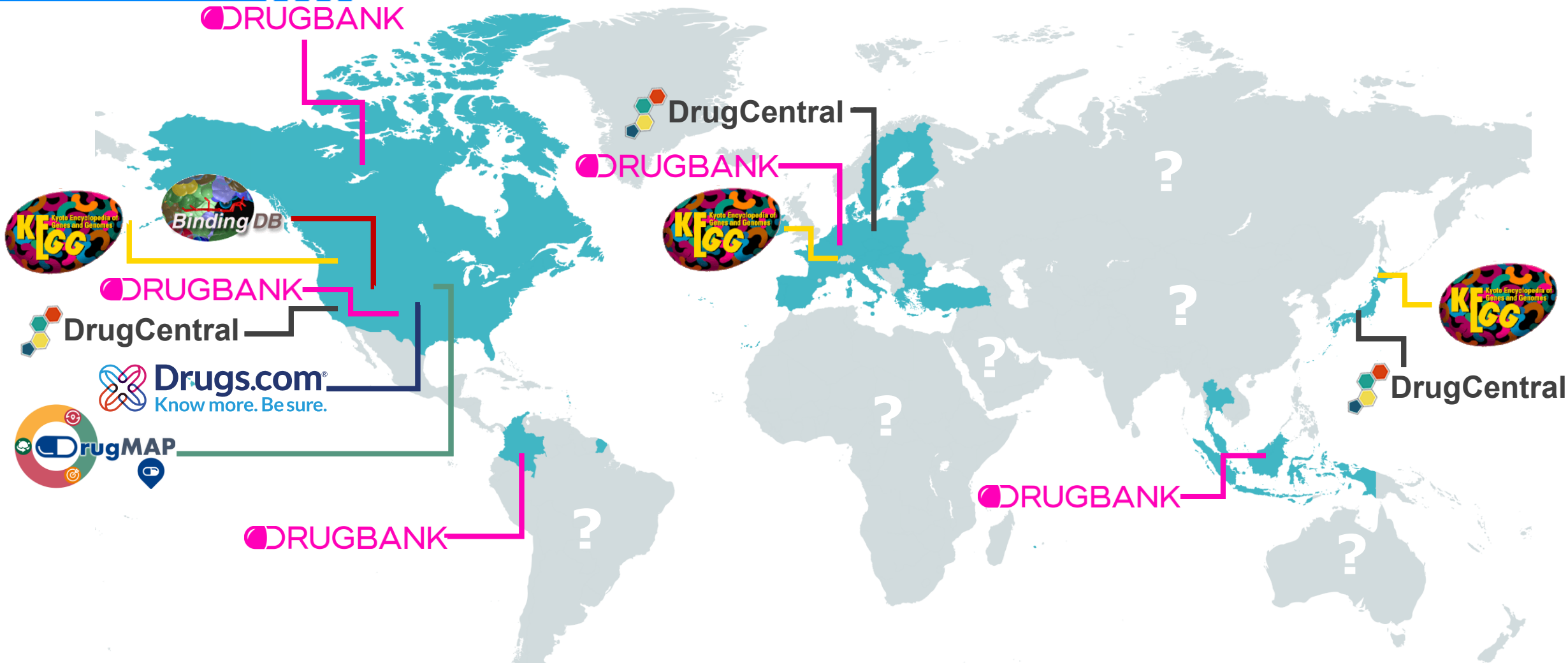
e-Drug3D offers a facility to explore FDA approved drugs and active metabolites ([see the description](#)).

2083 molecular structures approved between 1939 and 2023 with a molecular weight  $\leq 2000$  have been registered (last update: June 2023).

**Model List of Essential Medicines**

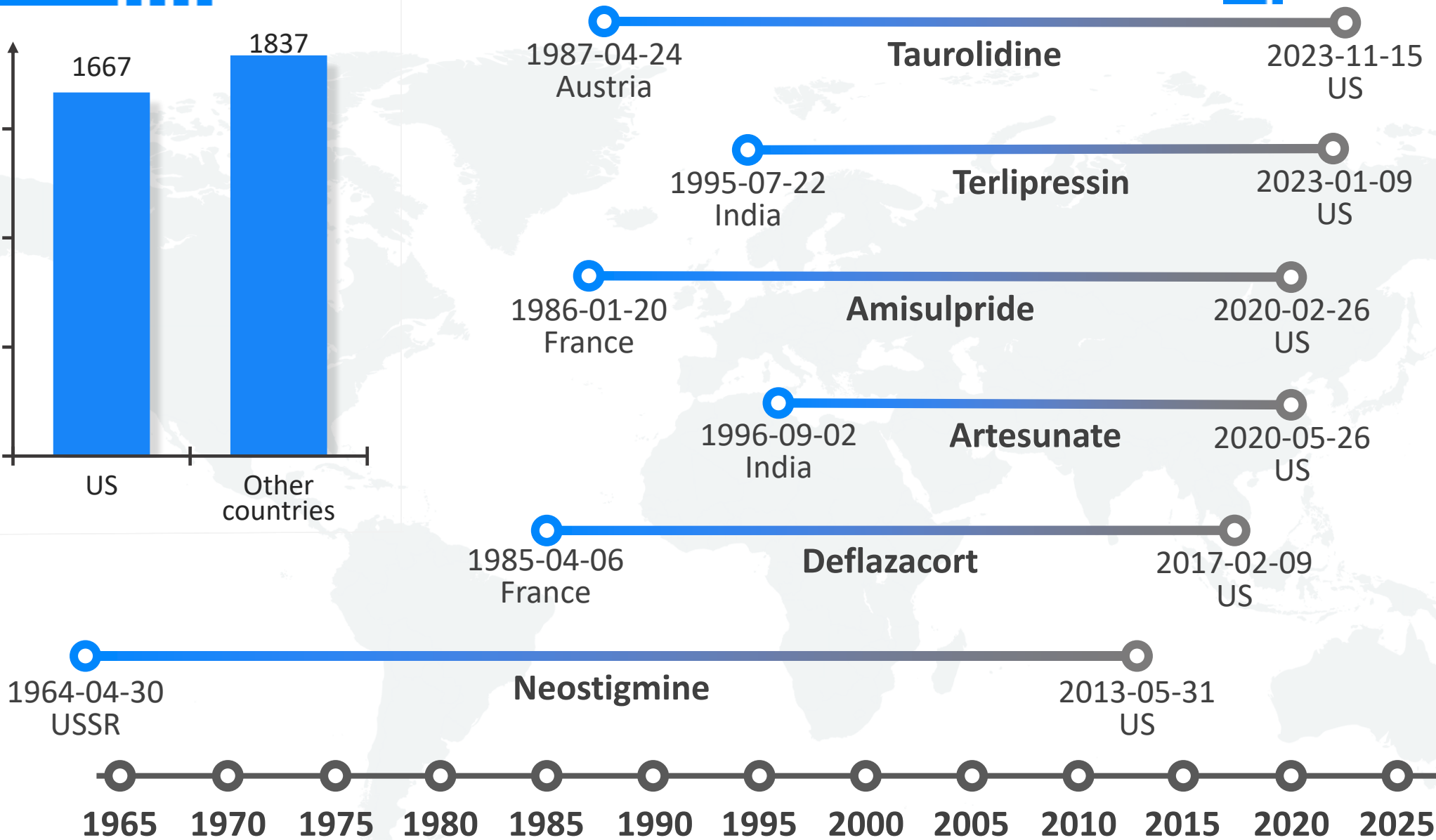
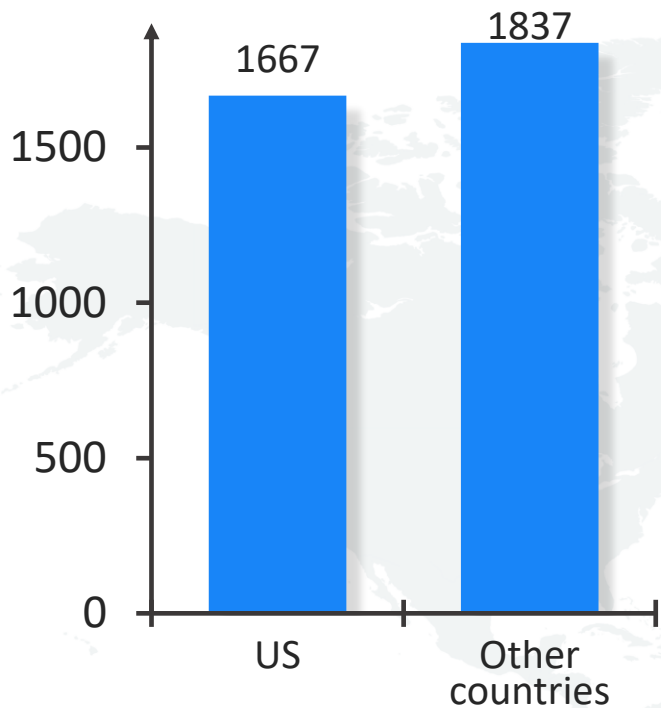
**DRUGBANK online**





How many drugs are there?

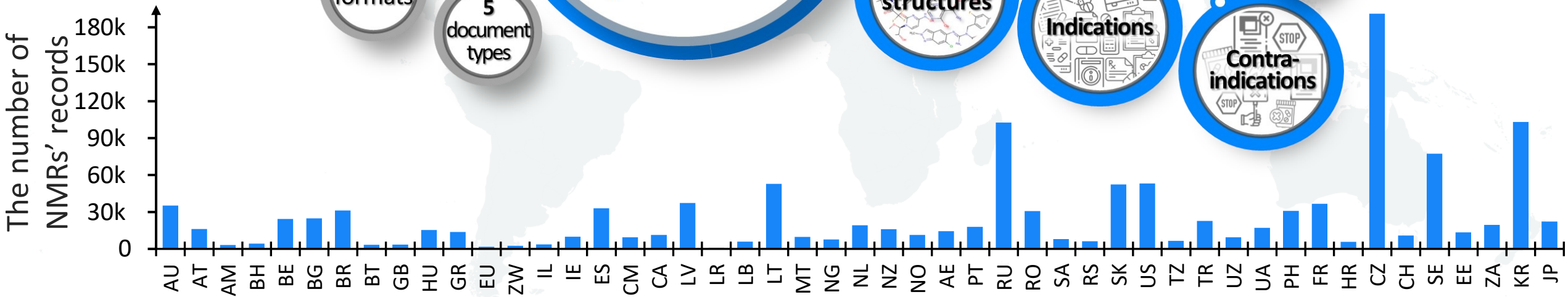
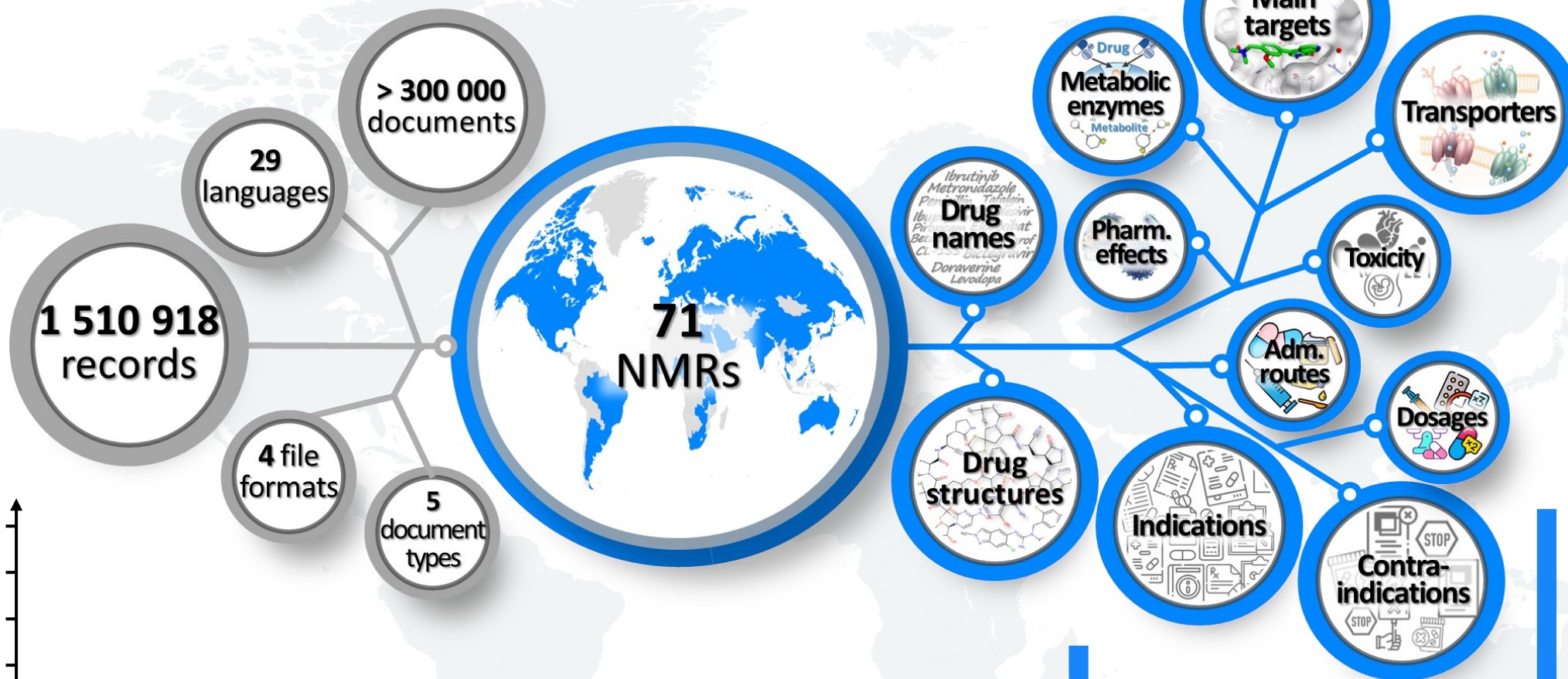
The number of first approvals

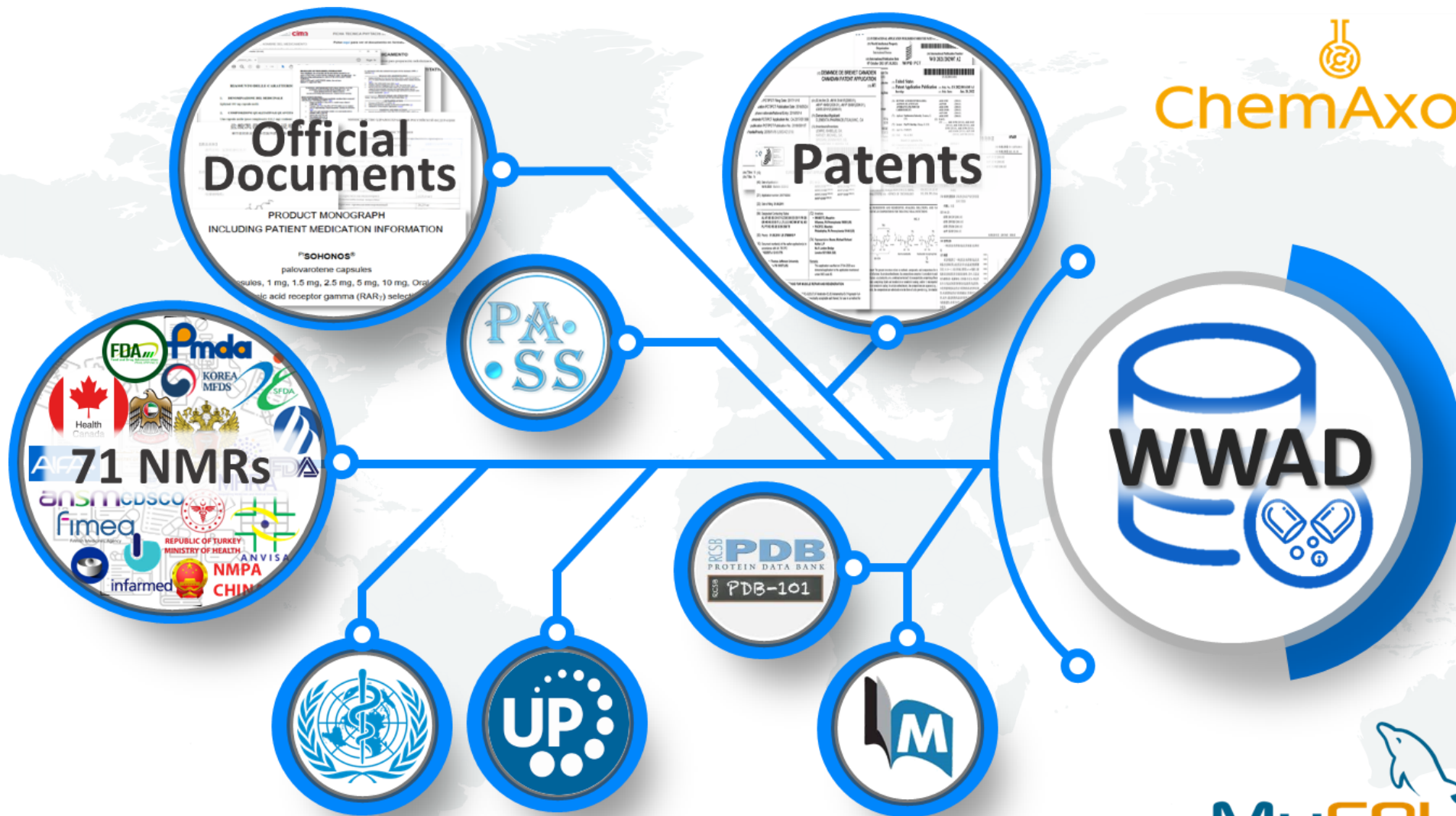




- FDA Drug Label
- FDA Pharmacology Review
- Drug Monograph
- Instructions for Use
- PMDA Review Report
- European Public Assessment Report
- Summary of Product Characteristics

\*NMRs - National Medicine Registers





<https://www.way2drug.com/wwad/>

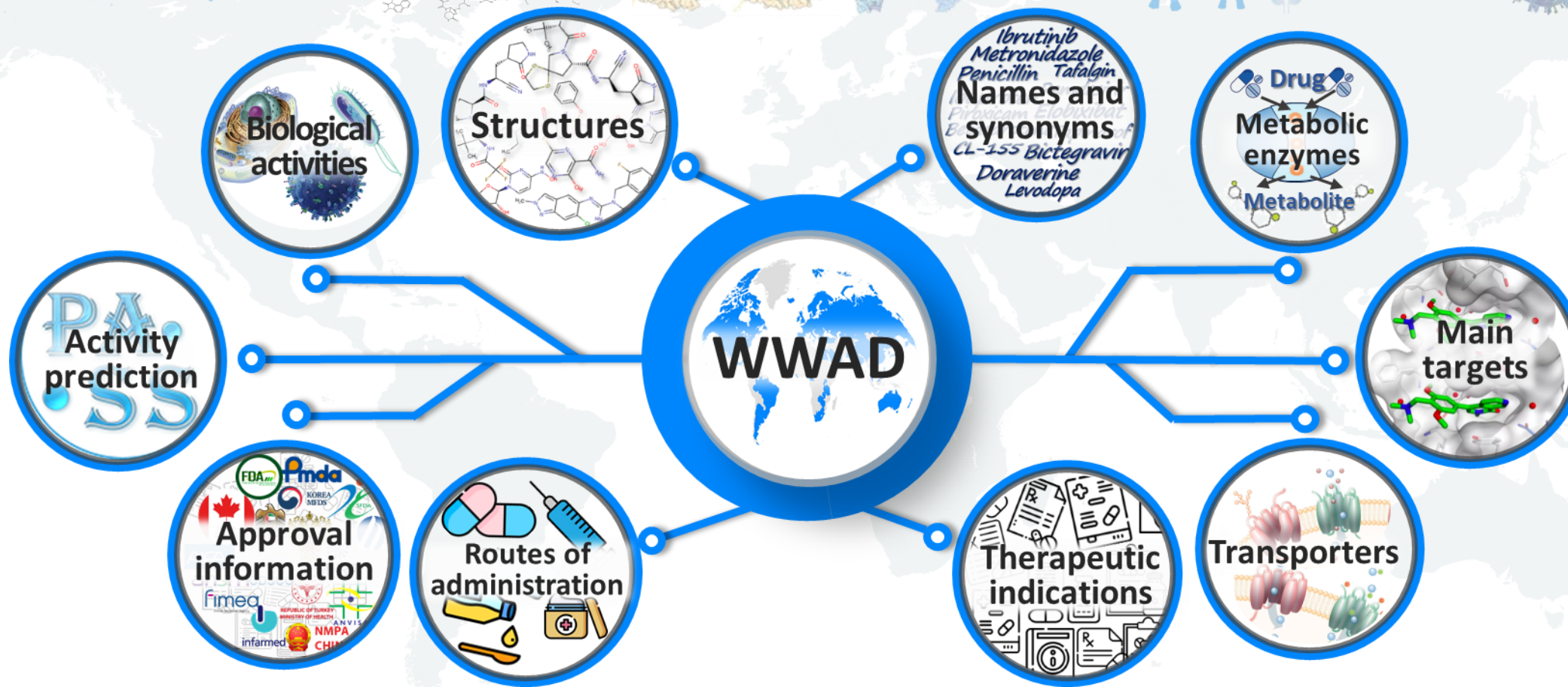
71 countries

4466 pharmaceutical substances

1926 molecular targets

1494 therapeutic indications

2289 biological activity types





<https://www.way2drug.com/wwad/>

## World Wide Approved Drugs

Database contains information on about medications approved at least in one of 71 countries, including the name of the drug, the structural formula of the drug substance, pharmacotherapeutic fields mechanisms of action, therapeutic indications, and first approval information.

One may browse the records in the database or search for a particular drug using the global search field or filtering of the data presented by a specific value. To use the specific filter, click "Show filter" button.

The result of biological activity spectra prediction using [PASS](#) for the drugs is also available.

Show 5 compounds Hide filter Search:

Structure	Name	Pharmacotherapeutic application	Target	Indications	Activity	Approval Agency *	Approval Date	PDB link	PASSonline prediction
	iptacopan	Iptacopan is a complement factor B inhibitor. Iptacopan binds to Factor B of the alternative complement pathway and regulates...	<a href="#">Complement factor B</a> (Organism: Homo sapiens, accessions: Q9BX92) inhibitor... <a href="#">Read more</a>	Hemoglobinuria	Complement C3 convertase ... <a href="#">Read more</a>	FDA	2023-12-05		
	nirogacestat	Nirogacestat is a gamma secretase inhibitor that blocks proteolytic activation of the Notch receptor. When dysregulated, Not...	<a href="#">Cytochrome P450 2C8</a> (Organism: Homo sapiens, accessions: P10632) inducer... <a href="#">Read more</a>	Desmoid tumor	Antineoplastic CYP2B6 ind... <a href="#">Read more</a>	FDA	2023-11-27		
	capivasertib	Capivasertib is indicated in combination with fulvestrant for the treatment of adult patients with hormone receptor-positive,...	<a href="#">RAC-alpha serine/threonine-protein kinase</a> (Organism: Homo sapiens, accessions: P31749) inhibitor... <a href="#">Read more</a>	Breast Cancer	Antineoplastic Antineopla... <a href="#">Read more</a>	FDA	2023-11-16		
	repotrectinib	Repotrectinib is an inhibitor of proto-oncogene tyrosine-protein kinase ROS1 (ROS1) and of the tropomyosin receptor tyrosine ...	<a href="#">Proto-oncogene tyrosine-protein kinase ROS</a> (Organism: Homo sapiens, accessions: P08922) inhibitor... <a href="#">Read more</a>	Non-small Cell Lung Cancer	Antineoplastic Antineopla... <a href="#">Read more</a>	FDA	2023-11-15	7GI	
	vamorolone	Vamorolone is a corticosteroid that acts	<a href="#">Glucocorticoid receptor</a> (Organism: Homo sapiens, accessions: P04697) inducer... <a href="#">Read more</a>	Duchenne	Antiinflammatory	FDA	2023-10-26		

World Wide approved drugs

**Brand name**  
iptacopan

**Description**  
Iptacopan is a complement factor B inhibitor. Iptacopan binds to Factor B of the alternative complement pathway and regulates...  
[Read more](#)

**Target**  
[Complement factor B](#) (Organism: Homo sapiens, accessions: Q9BX92) inhibitor...  
[Read more](#)

**Indications**  
Hemoglobinuria

**Activity**  
Complement C3 convertase ...  
[Read more](#)

**Approval agency**

A light gray world map is centered in the background of the slide.

**THANK YOU FOR YOUR ATTENTION**