

# Embase AI

## A new era for biomedical literature search

Embase AI transforms access to biomedical information by enabling researchers to ask questions in natural language and obtain responses within seconds.

It empowers both novice and experienced researchers, enhancing efficiency and insight through reliable citations and fostering a more user-friendly research experience.



Elevate your organization's discovery and decision making with:



### Enhanced ease of use

using natural language queries



### Trusted content

based on full Embase corpus



### Transparent searching

with Embase syntax conversion



### High security standards

through [responsible AI principles](#)



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Advancing human progress together

## How it works



Ask your question



LLM transforms question into Embase query



Retrieves full results set



LLM processes most relevant records



Provides summary response with in-line references

*"In two minutes with Embase AI, we can do what normally takes one hour [using other available sources]."*

- Medical Affairs Lead, Large Pharma

*"Embase AI is changing how I think about the problem, it helps me ask the right questions better. It adds 100% of extra value to Embase."*

- Product Manager, Large MedTech

## Searching for biomedical insights has never been easier

1 Ask your question.

What antiepileptic drug is best transported over the BBB?

2 Embase AI transforms question into Embase syntax.

✓ 1. Translating the question into Embase query language

Embase query:

('antiepileptic drug'/exp OR 'anticonvulsive agent'/exp OR 'antiepileptics':ti,ab,kw OR 'anticonvulsants':ti,ab,kw) AND ('blood brain barrier'/exp OR 'bbb':ti,ab,kw OR ('blood' NEAR/3 'brain' NEAR/3 'barriers'):ti,ab,kw) AND ('best':ti,ab,kw OR 'optimal':ti,ab,kw OR 'most effective':ti,ab,kw OR 'most efficient':ti,ab,kw OR 'transport':ti,ab,kw OR 'cross':ti,ab,kw)

[Open in results page](#)

[Copy query](#)

3 LLM generates responses based on the top five relevant articles, including in-line citations and links to the references.

References:

1. Anon. EMBASE MEDLINE Blood-brain barrier targeted delivery of lacosamide-conjugated gold nanoparticles: Improving outcomes in absence seizures. *Research*. 2022. EMBASE Number 128070. [Full text](#) [Cite this](#)

Most commonly available antiepileptics are not fully effective in the prevention of seizures in epilepsy owing to the presence of blood-brain barrier (BBB). We aimed to test whether binding an antiepileptic drug, lacosamide (LCM), to glucose-conjugated gold nanoparticles (GNPs) enables effective brain delivery to suppress the epileptic activity in WAG/Rij rat with absence epilepsy. Methods: In these intracarotid EEG recording, behavioral test, in vivo imaging of LCM and LCM-GNP conjugates within the brain, histologically created plasma membrane permeability analysis, immunofluorescence of glucose transporter (GLUT-1), gold (fluorescently labeled) (AuNP), and p-glycoprotein (P-gp) and microscopy were performed. Results: Lacosamide-GNP conjugates decreased the amplitude and frequency of spike-wave-like discharges (SWDs) and alleviated the ataxic-like behavior as assessed by elevated plus-maze test, respectively ( $p < 0.01$ ). The in vivo imaging results showed higher fluorescence signal targeted to LCM-GNP into brain during the 1-hour exposure period ( $p < 0.01$ ). Immunofluorescence staining displayed decreased P-gp, GLUT-1, and GPR expression by LCM-GNP conjugates predominantly in the cerebral cortex suggesting a potential functionality of the brain. In the modulation of neuronal activity in our experimental setting ( $p < 0.01$ ). Significance: We suggest that the conjugation of LCM to GNPs may provide a novel approach for effective brain drug delivery. The effectiveness of our strategy may only be suppressing the seizure activity but also in using the need to use high dosages of the antiepileptics to reduce the frequently encountered side effects of drug resistance epilepsy.

Terms:  Find term in Embase

Substances:  Find term in Embase

Disease terms:  Find term in Embase

4 Ask follow-up question to dive deeper into topic.

What are the most relevant transporters at the BBB for those drugs?



For more information visit [elsevier.io/embase-ai](https://elsevier.io/embase-ai)

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