

European Journal of Medicinal Chemistry

Abbreviation: *Eur. J. Med. Chem.* **Publisher:** Elsevier (on behalf of the Société de Chimie Thérapeutique) **Focus:** Medicinal chemistry, drug design, pharmacology **Impact Factor (2024):** ≈ 7.0 **ISSN:** 0223-5234 (print) / 1768-3254 (online) **Access:** Hybrid (open access + subscription)

Scope and Positioning

The journal covers a broad range of topics in medicinal chemistry, including:

- Small molecule synthesis
- Structure-activity relationships (SAR)
- Prodrug design
- Pharmacodynamics and pharmacokinetics
- Occasionally, preclinical pharmacology

Strength: Comprehensive platform for chemical innovation with therapeutic aims. **Weakness:** Often disconnected from translational or clinical impact. Many articles never progress beyond rodent models or cell lines.

Scientific Rigor & Methodological Quality

Area	Assessment
Peer review	Moderate — 3–4 weeks avg. turnaround
Experimental depth	Variable — some papers are robust, others exploratory
Reproducibility focus	Low — protocols often lack standardization
Clinical relevance	Frequently speculative, especially in oncology
Bias risk	Moderate — high percentage of positive findings, few negative controls

“Hypothesis validation” is often confused with “hypothesis decoration.”

Strengths for Neurosurgeons or Clinicians

- Good source of first-generation drug candidates, especially prodrugs, enzyme inhibitors, or hypoxia-targeted agents.
- May offer novel molecular scaffolds applicable in neuro-oncology or neuromodulation.

Limitations

- No clinical trials — not designed for translational medicine.
- Heavy emphasis on chemical novelty over biological significance.
- Often lacks:

1. Biodistribution data
2. Blood-brain barrier studies
3. Disease-specific models (e.g., glioblastoma, spinal cord tumors)

"A journal more interested in the molecule than in the patient."

□ Bottom Line (Neurosurgery Wiki Verdict)

European Journal of Medicinal Chemistry is where promising molecules are born — and too often, where they also die.

Excellent for spotting chemical innovation, but limited use for clinicians unless preclinical findings are confirmed elsewhere.

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