



義和科技
Civil Intelligence

CIVINTEL BIOPATTERN · PATENT LANDSCAPE REPORT

NLRP3 Inflammasome Inhibitors

Chinese Patent Landscape · Compound Structures · Competitive Intelligence

Civil Intelligence · October 2026

Unlocking China's Drug Discovery Intelligence

The Challenge

Why China remains a blind spot for global pharma R&D

- Chinese patents are written in Mandarin — inaccessible to most Western BD and CI teams.
- Existing databases cost \$50K+ per year, are built for humans, and offer no API for machine pipelines.
- No structured source of chemical structures extracted from Chinese filings.
- Critical gaps in competitive landscape and freedom-to-operate analysis.
- Manual translation and review is slow, expensive, and error-prone.

1,500+

Alzheimer's-related patents filed in China

245

NLRP3 compound patents (CN)

~0

of them in your current database

Our Solution

An AI-powered intelligence platform for Chinese pharmaceutical patents

Structured Compounds

Chemical structures extracted from patent figures as machine-readable SMILES, with targets, applicants and timelines attached.

Continuous Monitoring

Weekly sweeps of new Chinese filings. Alerts on new players, new scaffolds, and family expansions.

API-First Delivery

RESTful API, bulk datasets and analyst-grade reports. Built to plug into your existing CI and cheminformatics stack.

Compliant by design

Sourced from EPO Open Patent Services under a full commercial license (OPS T&C \$3.1 / \$4.6). Extracted data only — no raw document redistribution.

Why NLRP3

One of the most actively pursued targets in immunology

- The NLRP3 inflammasome drives IL-1 β / IL-18 release — a core mechanism of chronic inflammation.
- Implicated in Alzheimer's, cardiovascular disease, diabetes, gout and autoimmune disorders.
- Actively pursued by Roche, Novartis, IFM Therapeutics, Ventus and others.
- Clinical-stage precedents: MCC950 (tool), Dapansutride (OLT1177), DFV890.
- Chinese filings accelerating — a window for license-in and partnership deals.

The inflammasome field represents one of the most promising areas for therapeutic intervention in chronic inflammatory diseases.

— Nature Reviews Drug Discovery

245 → 120

NLRP3 CN patents → those containing novel compounds

NLRP3 Patent Coverage

Complete Chinese compound-patent landscape, updated from EPO OPS

245

Total NLRP3 CN patents

120

Compound patents
(C07D/C)

82

Titled as inhibitors

108

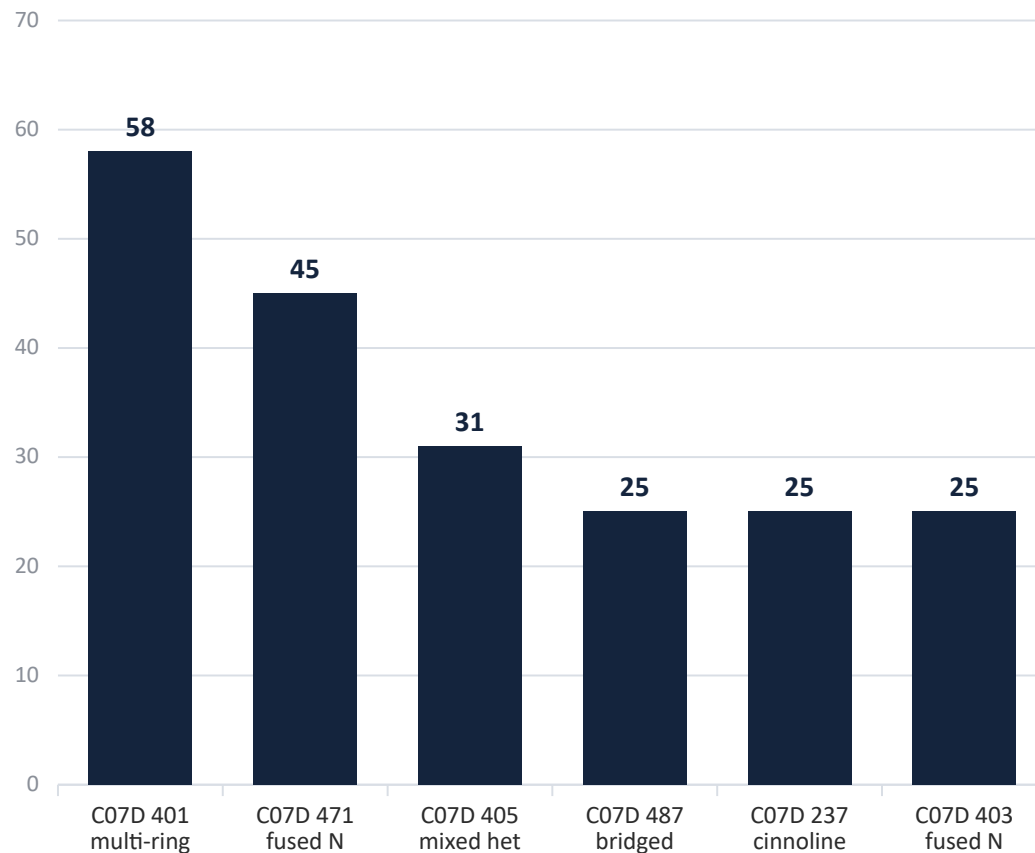
Distinct applicants

Top Applicants by Filing Volume

Rank	Applicant	Patents	Profile
1	Hoffmann-La Roche	17	Multinational pharma
2	Janssen Pharmaceutica (J&J)	11	Multinational pharma
3	Innate Tumor Immunity	10	US biotech
4	Ventus Therapeutics	7	US biotech
5	Hangzhou Matrix Bio	5	Chinese biotech

Chemical Scaffold Distribution

Heterocyclic families across the 120 compound patents (IPC C07D analysis)



What this tells us

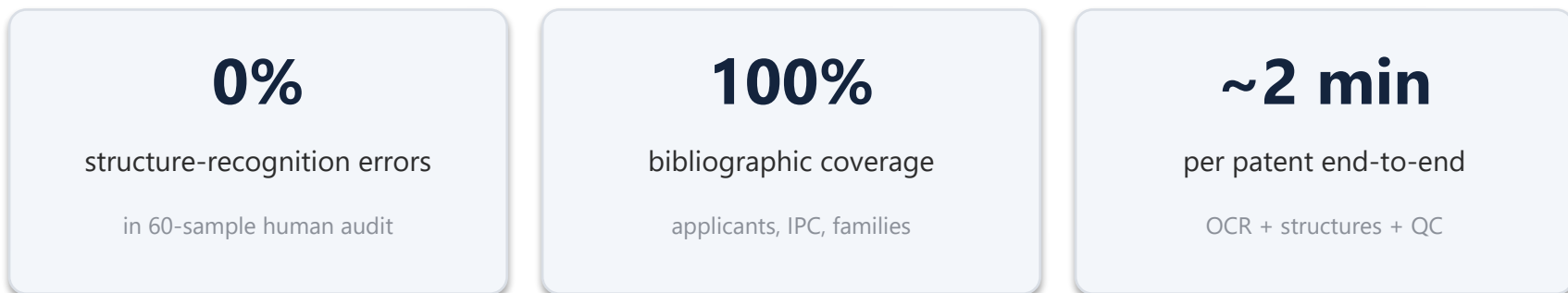
- Multi-heterocycle systems dominate — typical of next-gen NLRP3 chemotypes.
- Fused N-heterocycles are the single largest scaffold family.
- Sulfonylureas (MCC950 lineage) remain an active series.
- Natural-product derivatives (diterpenes, flavonoids) are a distinct Chinese niche.

How It Works

From raw patent PDFs to validated, queryable compound data



Measured Quality



Pipeline verified on 119 processed patents; 552 structure candidates audited against original figures.

Use Cases

Where clients deploy this intelligence

Competitive Intelligence

Track Chinese filings in your target area weekly. Spot new entrants, new scaffolds and family expansions before they surface in Western sources.

License-In Scouting

Identify licensable compounds from Chinese universities and biotechs, with structures and applicants already normalized for triage.

Freedom to Operate

Cover the Chinese flank of your FTO analysis. Avoid late-stage surprises from CN-only families invisible in English-language tools.

AI Drug Discovery

Stream deduplicated, validated structures into your models. Chinese patents add chemotypes absent from ChEMBL-class sources.

Engagement Options

Start with a pilot. Scale when the data proves itself.

Pilot Report

\$2,500

one-time

- ✓ One therapeutic area, full CN coverage
- ✓ Extracted compound structures
- ✓ Applicant & scaffold analysis
- ✓ PDF report + Excel dataset

MOST POPULAR

API Access

\$1,500

per month

- ✓ Full database, all covered targets
- ✓ Weekly update feed
- ✓ RESTful API + bulk export
- ✓ Email support

Enterprise

Custom

annual

- ✓ Multiple therapeutic areas
- ✓ Custom targets on request
- ✓ SSO & workflow integration
- ✓ Dedicated analyst support



Let's Talk

Book a 30-minute walkthrough of the NLRP3 dataset —
see the structures, the applicants, and the gaps in your current coverage.

contact@civintel.com

biopattern.civintel.com · Hong Kong

義和科技 — Bridging East and West in Drug Discovery