MCP SERVER | NO CODE | CLOUD HOSTED

ClinicalTrials.gov MCP for AI Agents

Search Global Clinical Trials and Drug Protocols by Condition

The ClinicalTrials.gov MCP connects your AI client directly to the United States National Institutes of Health (NIH) clinical research database. It gives you immediate, comprehensive access to over 500,000 registered studies. You can instantly search global trials by condition, drug name, or phase, locate participants in active recruitment, and pull deep protocols for any specific trial.

F Quality Score 3.6/100

clinical-trials | medical-research | public-health | data-registry | experimental-therapies | biomedical-data

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vinkius.com/mcp/clinicaltrialsgov

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

ClinicalTrials.gov MCP

3 tools available
Cloud-hosted on Vinkius

This MCP connects your AI agent straight to the gold standard source for clinical trial transparency: the NIH's ClinicalTrials.gov database. Instead of spending hours navigating complex government websites—manually filtering tabs and cross-referencing dates—your AI client handles it all in real time. You can query vast datasets spanning hundreds of thousands of studies, pinpointing exactly what you need, whether it's a Phase 3 trial for Alzheimer's or a drug study sponsored by a specific company. The system pulls complete protocols, eligibility criteria, and enrollment status right into your workflow. It doesn't matter if you use Claude, Cursor, or any other compatible client; through Vinkius, you get one connection point to this critical biomedical data source. This MCP is essential for anyone working with advanced medical research.

Core Capabilities

01 — Identify active participant opportunities

Instantly find clinical trials that are currently enrolling participants based on a specific medical condition.

02 — Pull comprehensive study protocols

Retrieve full, detailed records for any registered trial using its unique NCT identifier.

03 — Search the entire global registry

Run complex searches across the entire database by keywords, drug name, sponsor, or specific study phase.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/clinicaltrialsgov** — connect your AI agent in three steps.

01 You instruct your AI client to search for trial data, specifying criteria like a disease or therapeutic area.

02 The MCP executes the query against the NIH database and filters the results according to your parameters (e.g., Phase 2 trials only).

03 Your agent returns structured data: lists of matching studies, full protocols, or enrollment status reports that you can use immediately.

The bottom line is, your AI client pulls massive amounts of public health research data into a clean, usable format without needing any manual API calls or site navigation.

Built For

This MCP changes the game for biomedical researchers, pharmaceutical analysts, and patient advocate groups. If your job involves tracking experimental therapies or analyzing drug development status, you need this access point.

Biotech Analyst

Quickly assess the competitive landscape by searching for competitor studies and filtering results to see which drugs are in specific clinical phases.

Clinical Research Coordinator

Find active enrollment opportunities for patients matching a precise medical profile, ensuring they don't waste time looking at closed trials.

Healthcare Professional

Verify the latest study status and eligibility criteria for complex conditions by pulling detailed protocols using an NCT identifier.

What Changes When You Connect

01 Pinpoint active participant opportunities: Use find_recruiting_trials to immediately identify studies enrolling people with a specific medical condition, saving weeks of manual searching.

02 Deep dive into protocols: get_trial_details pulls the full study protocol for any trial using its NCT ID. You get eligibility rules, intervention details, and sponsor info all in one place.

03 Comprehensive search scope: The search_clinical_trials tool lets your agent query over 500k studies by condition, drug name, or even filter results just to see Phase 3 trials.

04 Saves time on tedious data collection: Instead of copying and pasting details from multiple NIH pages, the MCP delivers structured, usable data directly to your chat window.

05 Supports complex filtering: You can combine criteria—say, 'Alzheimer's *and* Phase 2 *and* drug X—all in one query using search_clinical_trials.

Real-World Applications

A patient advocate needs to know what's available for a rare disease.

The agent uses find_recruiting_trials, specifying the rare condition. It returns a list of 8 active trials across different institutions, including their enrollment targets and current status, so the advocate can immediately guide families toward open opportunities.

A pharma researcher needs to verify competitor data quickly.

The agent uses search_clinical_trials, filtering by a specific drug name and sponsor. It generates a report showing all historical and current trials for that compound across different global sites, which is essential for competitive analysis.

A clinician needs the full details on a promising trial.

The agent receives an NCT number from a colleague. The user feeds it to get_trial_details, and the MCP returns the complete protocol summary, including exact inclusion/exclusion criteria for immediate patient verification.

Analyzing all Phase 3 trials related to immunotherapy.

The agent uses search_clinical_trials, setting filters for 'immunotherapy' and 'Phase 3'. It compiles a table listing the top five studies globally, detailing their primary endpoints and recruitment status.

Patterns to Avoid

Searching by vague terms

✗ AVOID

Asking the agent to 'find trials about cancer.' This is too broad and yields thousands of irrelevant results that require manual sifting.

✓ INSTEAD

Use search_clinical_trials, specifying a condition *and* a drug name (e.g., 'metastatic melanoma' AND 'Pembrolizumab') for precise, actionable data.

Forgetting the trial ID

✗ AVOID

Asking to 'show details on that Phase 3 study we talked about.' Without a specific identifier, the system can't pull the correct record.

✓ INSTEAD

Always use get_trial_details and provide the full NCT number (e.g., NCT04280705) for guaranteed accuracy.

Missing recruitment status

✗ AVOID

Searching by condition but failing to filter by active status, leading to lists of closed or completed studies.

✓ INSTEAD

Always pair search_clinical_trials with a filter check to ensure the results only include currently recruiting trials.

The Right Fit

Use this MCP if your primary need is querying structured, public-facing biomedical data from known registries. If you are looking for general medical advice or synthesizing literature reviews based on abstracts alone, this isn't enough; you'll need a dedicated academic database connector. Don't use this if your task requires internal patient records (EHR/EMR) or proprietary company sales data—this MCP is read-only public data. If you just need to check the status of one specific trial number, get_trial_details works best. But if you're doing market sizing or a literature review across multiple variables, rely on search_clinical_trials and find_recruiting_trials for maximum coverage.

ClinicalTrials.gov MCP: Identifying Active Biomedical Research Opportunities

Today, finding specific trial data is a headache. You have to jump between the main search page, then drill down into phase filters, and if you want to know who's enrolling right now, you might have to run multiple searches just for different conditions or drug types. It’s tedious clicking through dozens of pages, often losing track of which studies are actually open.

With this MCP, you ask your agent a single question—for example, 'What Phase 3 trials are recruiting participants for ALS?' The system automatically runs the complex search_clinical_trials query and delivers a clean report. You get the results instantly, structured for analysis.

ClinicalTrials.gov MCP: Deep Protocol Retrieval for Clinical Analysis

When you find an interesting trial, manually gathering all the fine print—like who is eligible or what specific interventions they're testing—requires navigating multiple sub-pages and copy-

Now, with get_trial_details, you simply provide the NCT number. The MCP pulls the full protocol summary: eligibility criteria, intervention specifics, and enrollment timeline. You don't just get a link;

pasting text into a spreadsheet. It's slow and prone to human error.

you get all the critical data points organized for your next step.

ClinicalTrials.gov: 3 Tools for Biomedical Trial Data

Use these tools to perform targeted searches across the entire registry, pull full study details, or specifically locate actively recruiting participants.

#	TOOL	DESCRIPTION
01	`find_recruiting_trials`	Finds clinical trials that are actively recruiting participants for a specific medical condition, useful for patients and providers.
02	`get_trial_details`	Retrieves the complete profile of a single clinical trial using its unique NCT identifier.
03	`search_clinical_trials`	Searches the entire database by keyword, condition, drug name, or sponsor, and allows filtering by status/phase.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U What Phase 2 trials are currently recruiting participants for Crohn's disease?

Active Trials Found:
• **NCT12345678:** (Phase 2, Drug X) - Target: 150. Status: Recruiting. Focus: Inducing remission.
• **NCT98765432:** (Phase 2, Therapy Y) - Target: 80. Status: Recruiting. Focus: Maintenance therapy.

Want the full protocol summary for either of these?

U Show me all Phase 3 studies related to blood clot prevention.

Phase 3 Blood Clot Trials:

NCT ID	CONDITION	SPONSOR	ENROLLMENT TARGET
NCT11223344	DVT Prevention	PharmaCorp A	500

| NCT67890123 | PE Risk Reduction | MedResearch Inc. | 300 |

These are multi-center studies; check the details for eligibility criteria.

U Get me the full details on trial NCT04280705.

Profile: NCT04280705
• **Summary:** Study assesses novel combination therapy for Type 1 Diabetes.
• **Eligibility:** Must be between ages 18-65. HbA1c must be above 8%.
• **Interventions:** Drug A (Daily oral dose) and lifestyle modification.
• **Status:** Recruiting, expected completion Q4 2026.

Frequently Asked Questions

01 **How can I use the ClinicalTrials.gov MCP to find trials for a specific disease?**

You tell your AI agent you need to search by condition, like 'Alzheimer's disease.' The system will query all available studies and provide filtering options so you only see relevant phases or drug types.

02 **Does the ClinicalTrials.gov MCP show me trials that are closed?**

It can. However, if you need to know what's open for participants right now, your agent uses a specific tool to filter out completed or paused studies and only shows active enrollment opportunities.

03 **What kind of data do I get when I use the ClinicalTrials.gov MCP?**

You receive highly structured biomedical data, including eligibility criteria, sponsor names, intervention details, and recruitment timelines—not just a link to a webpage.

04 **Is the information from the ClinicalTrials.gov MCP real-time or cached?**

The MCP connects directly to the NIH database, ensuring you get current public data. This means your research reflects the most recent status updates available in the registry.

05 **Can I use the ClinicalTrials.gov MCP for drug development analysis?**

Yes. You can search by specific drug names or therapeutic areas and filter results to map out which compounds are being tested at various stages, helping you track competitive moves.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"clinicaltrialsgov": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

ClinicalTrials.gov is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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