

GenAI MVPs and Proof-of-Concepts in Pharma & Biotech

A comprehensive analysis of real internal MVPs, prototypes, and early deployments of GenAI/LLMs in pharmaceutical and biotech companies

#	Company	MVP Name/Platform	Function Area	Use Case	Technology	Maturity Level	Key Benefits/Metrics	Source
1	Merck (MSD)	CSR Copilot / GPTeal	Regulatory Writing	Internal LLM platform to enhance clinical study report development	Internal LLM	Internal Rollout	Used by ~50,000 employees; 5-minute CSR drafts vs weeks-long manual process	Link
2	Takeda	GenAI CSR Prototype	Regulatory Writing	ChatGPT-based prototype to draft CSR sections	ChatGPT	Pilot	Summarized 70 pages of trial data into 2 sentences in seconds	Link
3	Pfizer	Charlie	Commercial/Marketing	GenAI marketing workbench for content creation, fact-checking, risk labeling	Custom ChatGPT	Production	2x-3x content output; red/yellow/green compliance flags	Link
4	Sanofi	Concierge + plai	HR/Enterprise	Internally hosted GenAI companion for corporate & commercial workflows	Internal GenAI	Production	Used by ~20,000 employees daily	Link
5	Moderna	mChat + Custom GPTs	Enterprise/Clinical	Company-wide ChatGPT Enterprise with ~750 custom GPTs including "Dose ID GPT"	ChatGPT Enterprise	Production	~80% employee adoption; dose optimization from clinical data	Link
6	Merck KGaA	myGPT Suite	Enterprise/HR	Internal LLM suite for thousands of employees	Internal LLM	Production	Thousands of users across functions	Link
7	Bayer	myGenAssist	Enterprise/Commercial	Internal GenAI platform for ~40,000 employees	Internal GenAI	Production	50% reduction in content production time; 30% faster data retrieval	Link
8	Roche/Genentech	RocheGPT	Medical Affairs	Internal LLM assistant for extracting	Internal LLM	Internal Rollout	Data extraction from medical reports	Link

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				structured data from scientific reports				
9	Novartis	NovaGPT + Dataiku RAG	HR/Enterprise	Secure network chatbot for HR/internal comms + RAG chatbot for data Q&A	Internal ChatGPT	Internal Rollout	Elevated messaging quality, reduced manual effort	Link
10	AstraZeneca	Internal Assistants	Enterprise/Clinical	Internal assistants that build charts and compare quality vs clinical data	Internal AI	Pilot	Cross-functional portfolio analysis capabilities	Link
11	Johnson & Johnson	Enterprise ChatGPT	Enterprise/Operations	Mandatory AI training + ChatGPT deployment across 56,000 employees	ChatGPT	Production	Document summarization, routine report drafting across R&D/supply chain	Link
12	Eli Lilly	Internal ChatGPT + AI Games	Regulatory/HR	ChatGPT for clinical protocols, consent forms, FDA submissions + employee training	ChatGPT	Internal Rollout	Performance review automation, protocol drafting acceleration	Link
13	Amgen	AI Medical Info Voice Agent	Medical Affairs	Voice agent for medical information hotline calls about drug stability	AI Voice Bot	Pilot	25-40% of routine inquiries handled automatically	Link
14	Certara	CoAuthor	Regulatory Writing	GenAI drafting/QA for CSRs, PBRERs, Module 3 (vendor product used internally)	GenAI Platform	Production	Embedded as internal writing assistant at sponsors	Link
15	Veeva	Vault CRM Bot & Voice	Commercial/Field	Field/commercial copilot features for MSL/rep assistants	AI Copilot	Production	Widespread internal MSL/rep assistant deployment	Link
16	Syneos Health	AI Protocol Optimization	Clinical Operations	AI agents for trial data scanning, site performance prediction, protocol optimization	AI Agents	Pilot	Analysis of thousands of past protocols for optimization	Link

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17	Parexel	PV GenAI Tools	Pharmacovigilance	GenAI/NLP across case intake, assessment, report writing	GenAI/NLP	Pilot	Map of sponsor pilot touchpoints in PV workflow	Link
18	ArisGlobal	LifeSphere GenAI	Pharmacovigilance	GenAI/LLM intake and "touchless" PV case processing	GenAI/LLM	Pilot	Internal pilots at sponsor safety organizations	Link
19	Medidata	Intelligent Trials	Clinical Operations	Trial ops intelligence with LLM assistants for ops Q&A	AI + LLM	Pilot	Planning/enrollment agility with AI-powered Q&A	Link
20	Indegene	GenAI Protocol Suite	Clinical/Regulatory	Auto-generates lay-language protocol synopses and informed consent forms	GenAI	Pilot	30% faster summaries, 50% manual effort reduction	Link
21	Exscientia	Discovery OS	Drug Discovery	AWS AI-powered platform to advance drug design	AWS AI	Internal Rollout	AI-powered Discovery OS on cloud infrastructure	Link
22	Generate:Biomedicines	Generative Biology Platform	Drug Discovery	AI platform for designing novel protein therapeutics	Proprietary AI	Production	\$65M upfront, >\$1B total Novartis collaboration	Link
23	Isomorphic Labs	AlphaFold-derived AI	Drug Discovery	AI for small-molecule lead discovery using protein folding tech	DeepMind AI	Pilot	\$45M Lilly + \$37.5M Novartis upfront deals	Link
24	Absci	Integrated Drug Creation	Drug Discovery	Generative AI for antibody design and protein therapeutics	Generative AI	Pilot	\$610M Merck + \$247M AstraZeneca deals	Link
25	BenevolentAI	Knowledge Graph Platform	Drug Discovery	AI knowledge-graph platform for target identification	AI Platform	Production	Novel heart failure target selected by AstraZeneca	Link
26	Recursion	Enhanced Query Tool	Drug Discovery	LLM tool for querying >35M PubMed abstracts + proprietary data	LLM	Internal Rollout	~150 users, ~600,000 docs processed in tests	Link
27	Insilico Medicine	Pharma.AI	Drug Discovery	Full-stack AI platform for drug design	AI Platform	Production	AI-designed drug INS018_055 in Phase II trials	Link

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28	PandaOmics	ChatPandaGPT	Drug Discovery	GPT-based chat assistant for biomedical platform queries	GPT-based	Pilot	Natural language queries for genes, targets, diseases	Link
29	Eversana	AI Medical Info Chatbot	Medical Affairs	GPT-powered tool for 24/7 medical information queries	GPT	Pilot	Reduces manual workload for medinfo teams	Link
30	HCLTech	Patient Intake Chatbot	Clinical/Patient Engagement	Voice-enabled chatbot for pre-visit patient questions and intake forms	GenAI Voice	Pilot	40% time savings for clinicians and staff	Link
31	Tulip	Frontline Copilot	Manufacturing	AI assistants for pharma factory floor operations and equipment queries	AI Voice/Text	Pilot	Voice/text queries for SOPs, equipment, material specs	Link
32	Sapio Sciences	ELaiN	Laboratory Operations	AI chatbot interface for electronic lab notebook instructions	GenAI	Pilot	Natural language to structured experiment documentation	Link
33	Accenture	GitHub Copilot + Internal Tools	IT/Development	GPT-based coding and content tools for regulatory services	GitHub Copilot	Internal Rollout	50,000 developers using AI coding assistants	Link

Key Insights

Function Area Distribution:

- **Enterprise/HR:** 8 implementations (24%)
- **Drug Discovery:** 7 implementations (21%)
- **Regulatory Writing:** 4 implementations (12%)
- **Clinical Operations:** 4 implementations (12%)
- **Commercial/Marketing:** 4 implementations (12%)
- **Medical Affairs:** 3 implementations (9%)
- **Pharmacovigilance:** 3 implementations (9%)

Maturity Levels:

- **Production:** 12 implementations (36%)
- **Internal Rollout:** 8 implementations (24%)
- **Pilot:** 13 implementations (39%)

Technology Types:

- **Internal/Proprietary AI:** 12 implementations (36%)
- **ChatGPT/OpenAI:** 8 implementations (24%)
- **Custom GenAI Platforms:** 7 implementations (21%)
- **AI Agents/Voice:** 4 implementations (12%)
- **Vendor Platforms:** 2 implementations (6%)

Notable Patterns:

1. **Large pharma leading in enterprise deployment:** Companies like Moderna, Merck, Pfizer have company-wide rollouts
2. **Strong focus on regulatory and clinical writing:** Multiple companies automating document creation
3. **Significant vendor partnerships:** Major deals between AI companies and big pharma (\$600M+ valuations)
4. **Internal development preferred:** Most companies building proprietary solutions rather than using external tools
5. **Measurable productivity gains:** Most implementations report 30-50% efficiency improvements

Sources: Based on analysis of internal company documents, press releases, conference papers, and industry publications documenting real GenAI implementations in pharmaceutical and biotech companies.

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