Status of AI-Linked Drug Candidates – November 2026

Research Note · AI × Drug Discovery · AI × Biotechnology

Junctura Research

16 November 2026

Evidence as of 17 November 2026 · First published 16 November 2026, updated 17 November 2026
Web version: https://juncturaresearch.com/research/ai-drug-candidates-2026-11.html

ℹ Disclaimer

This is independent research produced with AI tools under human review. The authors are not financial professionals, and nothing here is investment advice or a recommendation to buy or sell any security. AI analysis can be wrong; check every claim against its cited source. The authors may hold positions in companies discussed and do not trade in any company discussed before the related research is public.

! Important

Updated 17 November 2026. The dated cohort changed from 16 to 32 candidates, and all 16 additions were made after their outcomes were known. Its stop rate moved from 25% (4 of 16) to 40.6% (13 of 32). The move comes entirely from rules set after the data; without the evidence ranking set after the data, the 32 give 25.0% (8 of 32), the same rate as first published. Across rule readings, the rate runs from 20.7% to 40.6%. See the Changelog.

Finding

As of 17 November 2026, we found no new molecule approved by the US Food and Drug Administration (FDA) that a company says was discovered or designed with artificial intelligence (AI). Three such candidates are in Phase 3 trials, usually the last stage of testing before approval. For two, the company ties AI to its platform, not to the molecule. A fourth, the antibody bamlanivimab, reached Phase 3 in 2020; its emergency use authorization was revoked, and it was never approved. Counting only explicit claims, one candidate has reached Phase 3; with platform claims, four; with borderline cases, six.

We also followed a fixed group of candidates tied to AI in company documents of the time and in trials by the end of 2023. Across rule readings, the share discontinued runs from 20.7% to 40.6%. Under our main rules, 13 of 32 candidates (40.6%; 95% interval 25.5–57.7%) have been discontinued. The whole move from the published 25% comes from rules set after the data: without the evidence ranking, the 32 give 8 (25.0%). All eight stops beyond the original 16 came from candidates added to the cohort after their outcomes were known. Three of the 32 (9.4%) reached Phase 3 in company or partner trials: rentosertib, bexobrutideg and bamlanivimab (data, code).

Share discontinued, by cohort (rows) and outcome rule (columns); the grid was fixed before computing (data).

Cohort	Main rules	Accutar's two read as unknown	No ranking of evidence
Original 16	5 of 16 (31.3%)	5 of 16 (31.3%)	4 of 16 (25.0%)
29: tier rule applied, before Recursion's three	11 of 29 (37.9%)	9 of 29 (31.0%)	6 of 29 (20.7%)
Main cohort, 32	**13 of 32 (40.6%)**	11 of 32 (34.4%)	8 of 32 (25.0%)
All tiers, 38: borderline included	14 of 38 (36.8%)	12 of 38 (31.6%)	8 of 38 (21.1%)

Evidence

What counts as an AI-discovered candidate

We count a candidate when a company document says AI or machine learning (software that learns patterns from data) found or designed the molecule, or chose its target ("explicit"). We also count candidates from a discovery platform the company describes as AI-based, even when the document does not tie AI to that molecule ("platform only"). Three kinds of case are left out, because removing AI would leave the molecule unchanged:

- AI used to find a new use for a drug already approved;
- computer-aided design that the company does not describe as AI;
- AI used only to design or run trials.

A fourth group is reported separately as "borderline": platforms where machine learning is named as one ingredient among several.

Three candidates in Phase 3, none approved

A search of company filings and releases in November 2026 found 37 candidates from 17 companies that meet the definition above. Of these, 32 have a registered trial and 3 are at Phase 3 (data).

- **Rentosertib (Insilico Medicine)** treats idiopathic pulmonary fibrosis (IPF), a progressive scarring of the lungs. A peer-reviewed Phase 2a paper calls it "a first-in-class AI-generated small-molecule inhibitor of TNIK, a first-in-class target in idiopathic pulmonary fibrosis (IPF) discovered using generative AI"[1]. Its Phase 3 trial started on 2026-09-09; estimated primary completion is 2029-10-30[2]. This is the one explicit claim among the three.
- **Bexobrutideg (NX-5948, Nurix Therapeutics)** is being tested in chronic lymphocytic leukemia. Nurix says that "Both our wholly owned and partnered pipelines are driven by our DEL-AI discovery engine which employs advanced machine learning"[3]. The claim is platform only. A Phase 3 trial against pirtobrutinib started on 2026-08-03[4].

[1] Xu Z et al., "A generative AI-discovered TNIK inhibitor for idiopathic pulmonary fibrosis: a randomized phase 2a trial," *Nature Medicine*, published online 2025-06-03, doi:10.1038/s41591-025-03743-2. Open-access copy in PubMed Central: https://pmc.ncbi.nlm.nih.gov/articles/PMC12353801/, accessed 2026-11-16.

[2] ClinicalTrials.gov, NCT07687459, "Study Evaluation Rentosertib (INS018_055) Administered Orally in Patients With Idiopathic Pulmonary Fibrosis (IPF)." https://clinicaltrials.gov/study/NCT07687459, accessed 2026-11-16.

[3] Nurix Therapeutics, Inc., Form 10-K for the fiscal year ended 2025-11-30, filed 2026-01-28, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1549595/000154959526000016/nrix-20251130.htm, accessed 2026-11-16.

- **GB-0895 (Generate Biomedicines)** is an antibody for severe asthma. Generate says it "utilizes our binding affinity and developability optimization modules", which are parts of the company's AI platform[5]. This is also platform only. Two Phase 3 trials started on 2025-12-03 and 2026-01-20[6][7].

A search of the FDA's Drugs@FDA database (openFDA) on 2026-11-16 returned no records for any of the three (data)[8]. On 2026-11-17 we searched all 25,670 original approvals in Drugs@FDA for 109 molecule names and code names from all tiers. The only new molecule found was lirafugratinib, a borderline candidate (below) (data, code)[9]. The one approval from a cohort developer, Denali Therapeutics, is for a product its SEC filings do not tie to AI (data, checks).

An emergency authorization, not an approval. AbCellera calls its platform "full-stack, AI-powered" and says it "applied our technology stack to co-develop LY-CoV555"[10]; Lilly's trial record gives bamlanivimab as its other name[11]. Eli Lilly tested it in Phase 3 in 2020 (data). Its emergency use authorization of 2020-11-09 was revoked on 2021-04-16, citing variants "resistant to bamlanivimab alone"[12]; its authorization with etesevimab was revoked on 2023-12-14[13]. AbCellera's bebtelovimab[14] was authorized on 2022-02-11 and revoked on 2024-12-13[15]. Lilly's own trials of it reached Phase 2/3, so it counts only in a sensitivity line (data).

The count depends on the definition. Two borderline candidates are in Phase 3: Relay Therapeutics' RLY-2608 (zovegalisib), since 2025-08-26, and Structure Therapeutics' aleniglipron, since July 2026 (data). Both companies name machine learning as one part of a broader platform[16][17]. A third borderline molecule, Relay's lirafugratinib (RLY-4008), licensed to Elevar Therapeutics in December 2024[18], was approved by the FDA on

[4]ClinicalTrials.gov, NCT07516093, "Study of NX-5948 Versus Pirtobrutinib in R/R CLL/SLL." https://clinicaltrials.gov/study/NCT07516093, accessed 2026-11-16.

[5]Generate Biomedicines, Inc., Form S-1/A, filed 2026-02-23, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/2100782/000119312526062362/ck0002100782-20260223.htm, accessed 2026-11-16.

[6]ClinicalTrials.gov, NCT07276724, "A Study to Investigate GB-0895 Adjunctive Therapy in Adults and Adolescents With Severe Uncontrolled Asthma (SOLAIRIA-1)." https://clinicaltrials.gov/study/NCT07276724, accessed 2026-11-16.

[7]ClinicalTrials.gov, NCT07359846, "A Study to Investigate GB-0895 Adjunctive Therapy in Adults and Adolescents With Severe Uncontrolled Asthma (SOLAIRIA-2)." https://clinicaltrials.gov/study/NCT07359846, accessed 2026-11-16.

[8]US Food and Drug Administration, openFDA Drugs@FDA interface, searched 2026-11-16 for "rentosertib", "bexobrutideg" and "GB-0895". https://open.fda.gov/apis/drug/drugsfda/; example query https://api.fda.gov/drug/drugsfda.json?search=openfda.generic_name:"rentosertib", accessed 2026-11-16.

[9]U.S. Food and Drug Administration, openFDA Drugs@FDA bulk download, as downloaded (meta last_updated 2026-11-16). https://download.open.fda.gov/drug/drugsfda/drug-drugsfda-0001-of-0001.json.zip, accessed 2026-11-17.

[10]AbCellera Biologics Inc., Amendment No. 1 to Form S-1, dated 2020-11-24, EDGAR filing date 2020-11-25, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1703057/000119312520302988/d29983ds1a.htm, accessed 2026-11-17.

[11]ClinicalTrials.gov, NCT04427501, "A Study of LY3819253 (LY-CoV555) and LY3832479 (LY-CoV016) in Participants With Mild to Moderate COVID-19 Illness," API record; intervention LY3819253, other names "LY-CoV555" and "Bamlanivimab". https://clinicaltrials.gov/api/v2/studies/NCT04427501, accessed 2026-11-17.

[12]U.S. Food and Drug Administration, "Coronavirus (COVID-19) Update: FDA Revokes Emergency Use Authorization for Monoclonal Antibody Bamlanivimab," 2021-04-16. https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-revokes-emergency-use-authorization-monoclonal-antibody-bamlanivimab, accessed 2026-11-17.

[13]U.S. Food and Drug Administration, "Emergency Use Authorization — Archived Information" (entries for bamlanivimab and etesevimab, and for bebtelovimab). https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization-archived-information, accessed 2026-11-17.

[14]AbCellera Biologics Inc., Form 10-K for 2025, filed 2026-02-24, pipeline table and footnote 2, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1703057/000170305726000012/abcl-20251231.htm, accessed 2026-11-17.

[15]U.S. Food and Drug Administration, "Emergency Use Authorization — Archived Information" (entries for bamlanivimab and etesevimab, and for bebtelovimab). https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization-archived-information, accessed 2026-11-17.

[16]Relay Therapeutics, Inc., Form 10-K for 2025, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1812364/000119312526076739/rlay-20251231.htm, accessed 2026-11-16.

[17]Structure Therapeutics Inc., Form 10-K for 2025, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1888886/000110465926020562/gpcr-20251231x10k.htm, accessed 2026-11-16.

[18]Relay Therapeutics, Inc., Form 10-K for 2025, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1812364/000119312526076739/rlay-20251231.htm, accessed 2026-11-16.

2026-09-23 for a bile-duct cancer, after a Phase 1/2 trial[19][20][21]. Relay says RLY-4008's data "validated our Dynamo platform", which "combines advanced machine learning models and molecular dynamics simulations" with laboratory work[22]; it does not say machine learning designed the molecule. This is the first FDA approval of a molecule from a borderline-tier company; there is none in the explicit and platform tiers. All three stay outside the headline count.

Tier counted	Candidates that reached Phase 3	Count	First published
Explicit only	rentosertib	1	1
Explicit or platform only (reached Phase 3 at any time; 3 now in Phase 3)	rentosertib, bexobrutideg, GB-0895, bamlanivimab	4	3
Also borderline	the four above, RLY-2608 (zovegalisib), aleniglipron	6	5

Counting bebtelovimab gives 1, 5 and 7 (data). MindRank says its MDR-001 "has entered Phase III clinical trials" (company claim)[23]. On ClinicalTrials.gov that trial is not yet recruiting[24], so under our rule MDR-001 counts at Phase 2.

Approvals outside the definition. BioXcel ties its IGALMI to its platform; the molecule, dexmedetomidine, was launched in the US in 1999 as Precedex[25].

A list of current candidates hides the ones that stopped

None of the current candidates with a registered trial had a stopped trial in the registry; NX-2127 has since been stopped by Nurix[26]. That 0% is a product of the method: current filings describe programs still running. So we built a dated group, called a cohort. A candidate entered it only if both conditions held:

- a document of the time tied it to AI: an SEC annual or IPO filing filed by 2024-04-30, or another company document dated 2019–2023;
- it was in a trial by 2023-12-31.

The rule was written down before the outcomes were collected (rules). We then recorded each candidate's status as of 2026-11-17 (data).

[19]U.S. Food and Drug Administration, approval letter for NDA 220425, Lyrfigtu (lirafugratinib) capsules, Elevar Therapeutics, signed 2026-09-23. https://www.accessdata.fda.gov/drugsatfda_docs/appletter/2026/220425Orig1s000ltr.pdf, accessed 2026-11-17.

[20]U.S. Food and Drug Administration, openFDA Drugs@FDA record for NDA 220425 (sponsor Elevar, original approval 2026-09-23). https://api.fda.gov/drug/drugsfda.json?search=application_number:NDA220425, accessed 2026-11-17.

[21]ClinicalTrials.gov, NCT04526106 (RLY-4008, Phase 1/2, start 2020-09-02). https://clinicaltrials.gov/study/NCT04526106, accessed 2026-11-17.

[22]Relay Therapeutics, Inc., Form 10-K for 2022, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1812364/000095017023004123/rlay-20221231.htm, accessed 2026-11-17.

[23]MindRank, home page (company claim). https://www.mindrank.ai/, accessed 2026-11-17.

[24]ClinicalTrials.gov, NCT07274137 (MDR-001), API record. https://clinicaltrials.gov/api/v2/studies/NCT07274137, accessed 2026-11-17.

[25]BioXcel Therapeutics, Inc., Form 10-K for 2025, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1720893/000110465926036214/btai-20251231x10k.htm, accessed 2026-11-16.

[26]Nurix Therapeutics, Inc., Form 10-Q for the quarter ended 2026-08-31, filed 2026-10-13, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1549595/000154959526000049/nrix-20260831.htm, accessed 2026-11-17.

Why the cohort changed. The first version drew only on the current list's 17 companies. A coverage check on 2026-11-17 found companies whose AI wording sits in older filings (Adagene, AbCellera), only in releases (Accutar, Aulos Bioscience with Biolojic Design, Pharos iBio, Drug Farm) or in China (MindRank). Sixteen of their candidates met the unchanged entry rule (rows, except ADG104 and ADG125; Drug Farm). Six of them are borderline under the tier rule as written. Adagene lists AI as one of five parts of its platform[27]; Drug Farm's platform "combines breakthrough technologies in genetics and AI"[28].

Recursion's REC-994, REC-2282 and REC-4881 had been left out as new uses of existing drugs, but none is FDA-approved[29]. Recursion's 2022 annual report says "The novel use of REC-994 for CCM was discovered leveraging this early form of the Recursion OS", with similar wording for the other two, and reports trials of all three under way[30]. All three enter as platform only (evidence). Insilico's ISM5411 enters as explicit: a 2023-12-05 release says it was "Designed by AI from scratch"[31]; its Phase 1 trial started on 2023-11-08[32]. The release calls it Insilico's "fifth AI-driven drug program to enter clinical trials", by our reading counting programs cleared for trials[33]: by December 2023, rentosertib, ISM3312 (China, February 2023)[34], ISM3091 (FDA, April 2023)[35], ISM8207 (China, July 2023)[36] and ISM5411. Two more enter as explicit (evidence). ISM3312, for COVID-19, was "generated and designed with the support of" Insilico's Chemistry42 platform[37] and was "in Phase I trials" by May 2023[38]. ISM3091, licensed to Exelixis as XL309, was "designed and optimized using" Chemistry42[39];

[27] Adagene Inc., Form 20-F for 2022, filed 2023-04-28, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1818838/000110465923052043/adag-20221231x20f.htm, accessed 2026-11-17.

[28] Drug Farm, "Drug Farm doses first patient in Phase 1 trial for ALPK1 inhibitor, DF-003," Business Wire release of 2023-09-19, copy on BioSpace (company claim). https://www.biospace.com/drug-farm-doses-first-patient-in-phase-1-trial-for-alpk1-inhibitor-df-003, accessed 2026-11-17.

[29] U.S. Food and Drug Administration, openFDA Drugs@FDA bulk download, as downloaded (meta last_updated 2026-11-16). https://download.open.fda.gov/drug/drugsfda/drug-drugsfda-0001-of-0001.json.zip, accessed 2026-11-17.

[30] Recursion Pharmaceuticals, Inc., Form 10-K for 2022, filed 2023-02-27, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183023000010/rxrx-20221231.htm, accessed 2026-11-16.

[31] Insilico Medicine, release of 2023-12-05 on ISM5411, verbatim copy on Kyodo News PR Wire (company release copy). https://kyodonewsprwire.jp/release/202312053801, accessed 2026-11-17.

[32] ClinicalTrials.gov, NCT06012578 (ISM5411, Phase 1, start 2023-11-08, completed); Phase 2 trial NCT07265570 started 2025-12-10, recruiting. https://clinicaltrials.gov/study/NCT06012578, https://clinicaltrials.gov/study/NCT07265570, accessed 2026-11-17.

[33] Insilico Medicine, "Insilico Medicine receives IND approval for novel AI-designed USP1 inhibitor for cancer," 2023-05-25, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/990417, accessed 2026-11-17.

[34] Insilico Medicine, 3CLpro pipeline page, undated (company claim): "We received the IND approval in February 2023 and initiated a Phase I clinical trial in China in March 2023"; "Project Status – Phase I Completed". https://insilico.com/pipeline_target_3clpro, accessed 2026-11-17.

[35] Insilico Medicine Cayman TopCo, Annual Report 2025, HKEXnews, 2026-04-28, pipeline chart (no ISM3312 or 3CL entry), https://www1.hkexnews.hk/listedco/listconews/sehk/2026/0428/2026042803625.pdf; and Global Offering prospectus, 2025-12-18 (company claim), on ISM3091: "We received IND approval from the FDA in April 2023, and we initiated a Phase Ia clinical trial in the U.S. in August 2023", https://ir.insilico.com/media/rgwjwpqu/global-offering-en.pdf, accessed 2026-11-17.

[36] Insilico Medicine, release of 2024-05-15 on the first patient dosed with ISM8207 ("In July 2023, ISM8207 received IND approval from CDE"), EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/1044804, accessed 2026-11-17.

[37] Insilico Medicine, "Insilico Medicine sends first generative AI-designed drug for COVID-19 and variants to clinic," 2023-02-23, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/980646, accessed 2026-11-17.

[38] Insilico Medicine, "Insilico Medicine receives IND approval for novel AI-designed USP1 inhibitor for cancer," 2023-05-25, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/990417, accessed 2026-11-17.

[39] Insilico Medicine, "Insilico Medicine receives IND approval for novel AI-designed USP1 inhibitor for cancer," 2023-05-25, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/990417, accessed 2026-11-17.

[40] Exelixis, Inc., Form 10-K for fiscal 2023, filed 2024-02-06, SEC EDGAR: "In the fourth quarter of 2023, we completed the transfer of stewardship of the ongoing phase 1 clinical trial evaluating XL309 from Insilico to us." https://www.sec.gov/Archives/edgar/data/939767/000093976724000028/exel-20231229.htm, accessed 2026-11-17.

[41] Exelixis, Inc., Form 10-Q, filed 2026-10-29, SEC EDGAR: "XL309 is currently being evaluated in a phase 1 clinical trial … and enrollment is ongoing." https://www.sec.gov/Archives/edgar/data/939767/000093976726000116/exel-20261002.htm, accessed 2026-11-17.

Exelixis took over its "ongoing phase 1 clinical trial" in late 2023[40], and it is active[41]. ISM8207, first dosed in a patient in 2024, does not enter[42].

The main cohort has 32 candidates: 15 with explicit claims and 17 platform only. Apart from Recursion's three, it counts only cases where AI acted on the molecule (for two vaccines, by choosing their antigens) or the step is not stated. BenevolentAI's BEN-8744, where AI chose only the target, is left out.

Which evidence wins. We rank evidence: regulator action, then a company or partner stop statement, then registry status, then pipeline listings. A candidate is "unknown" only when evidence of equal rank conflicts, or there is none. Both rules were set after the data were seen. The ranking decides five stops: bamlanivimab, bebtelovimab, NX-2127 (Nurix decided to "discontinue further clinical development of zelebrudomide"[43]; its trial still shows recruiting[44]), AC0682 and AC176 (all trials terminated[45][46]; still on Accutar's undated pipeline page[47]).

The 13 discontinued candidates in the main cohort (data, Accutar, AI-claim sources: cohort, added rows, Recursion, Insilico):

Candidate	Company	AI claim	Highest phase	Reason given
EXS21546	Exscientia (now Recursion)	Explicit[48]	Phase 1/2	Trial results[49]
DSP-1181	Sumitomo Pharma, with Exscientia	Explicit[50]	Phase 1	None stated[51]

[42]Insilico Medicine, release of 2024-05-15 on the first patient dosed with ISM8207 ("In July 2023, ISM8207 received IND approval from CDE"), EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/1044804, accessed 2026-11-17.

[43]Nurix Therapeutics, Inc., Form 10-Q for the quarter ended 2026-08-31, filed 2026-10-13, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1549595/000154959526000049/nrix-20260831.htm, accessed 2026-11-17.

[44]ClinicalTrials.gov, NCT04830137 (NX-2127), API record, status "RECRUITING". https://clinicaltrials.gov/api/v2/studies/NCT04830137, accessed 2026-11-17.

[45]ClinicalTrials.gov, NCT05080842 and NCT05489679 (AC682), API records, status "TERMINATED", why stopped: "Voluntarily terminate the study since the sponsor's development strategy was adjusted." https://clinicaltrials.gov/study/NCT05080842, https://clinicaltrials.gov/study/NCT05489679, accessed 2026-11-17.

[46]ClinicalTrials.gov, NCT05241613 and NCT05673109 (AC176), API records, status "TERMINATED", why stopped: "Subject benefit-risk ratio changes, sponsor decides to voluntarily terminate study". https://clinicaltrials.gov/study/NCT05241613, https://clinicaltrials.gov/study/NCT05673109, accessed 2026-11-17.

[47]Accutar Biotechnology, "Drug Pipeline" page, undated (company claim). https://www.accutarbio.com/workflow, accessed 2026-11-17.

[48]Exscientia plc, Form F-1, filed 2021-09-10, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1865408/000110465921114491/tm2119783-5_f1.htm, accessed 2026-11-16.

[49]Exscientia plc, Form 20-F for 2023, filed 2024-03-21, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1865408/000186540824000018/exai-20231231.htm, accessed 2026-11-16.

[50]Sumitomo Dainippon Pharma, Supplementary Financial Data, development pipeline and product profiles as of 2021-01-28 (company claim). https://www.sumitomo-pharma.com/ir/library/financial_results_summary/assets/pdf/ebr20210128.2.pdf, accessed 2026-11-16.

[51]Sumitomo Dainippon Pharma, Supplementary Financial Data, development pipeline as of 2022-01-31. https://www.sumitomo-pharma.com/ir/library/financial_results_summary/assets/pdf/ebr20220131.2.pdf, accessed 2026-11-16.

[52]BenevolentAI, "BenevolentAI announces top-line Phase IIa results for its topical pan-Trk inhibitor BEN-2293 (1%) in mild-to-moderate atopic dermatitis," 2023-04-05 (company release filed under the EU Market Abuse Regulation; copy hosted by FinancialReports, a third-party filings archive, because the official Euronext page returned no content to scripted access). https://cdn.financialreports.eu/financialreports/media/filings/9192/2023/ISS/9192_iss_2023-04-05_9e70dda6-693a-4dfa-83d9-a4b8a4b48421.pdf, accessed 2026-11-16.

[53]BenevolentAI, "Unaudited preliminary results for the year ended 31 December 2023," 2024-03-14 (company release; copy hosted by FinancialReports, a third-party filings archive, because the official Euronext page returned no content to

Candidate	Company	AI claim	Highest phase	Reason given
BEN-2293	BenevolentAI	Platform only	Phase 1/2	Trial results[52][53]
REC-3964	Recursion	Platform only[54]	Phase 2	Portfolio[55]
REC-994	Recursion	Platform only[56]	Phase 2	Portfolio[57]
REC-2282	Recursion	Platform only[58]	Phase 2/3	Portfolio[59]
NX-2127	Nurix	Platform only[60]	Phase 1	Portfolio[61]
AC0682	Accutar Biotechnology	Explicit	Phase 1	Portfolio ("development strategy was adjusted")[62]
AC176	Accutar Biotechnology	Platform only	Phase 1	Trial results ("benefit-risk ratio changes")[63]
TAK-920/DNL919	AbCellera, with Denali Therapeutics	Platform only	Phase 1	Portfolio ("strategic decision based on the totality of clinical data"; also cites the treatment landscape)[64]

scripted access). https://cdn.financialreports.eu/financialreports/media/filings/9192/2024/ISS/9192_iss_2024-03-14_7629f067-746d-4034-958a-f1d5859e92eb.pdf, accessed 2026-11-16.

[54]Recursion Pharmaceuticals, Inc., Form 10-K for 2022, filed 2023-02-27, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183023000010/rxrx-20221231.htm, accessed 2026-11-16.

[55]Recursion Pharmaceuticals, Inc., Form 10-K for 2025, filed 2026-02-25, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1601830/000160183026000039/rxrx-20251231.htm, accessed 2026-11-16.

[56]Recursion Pharmaceuticals, Inc., Form 10-K for 2022, filed 2023-02-27, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183023000010/rxrx-20221231.htm, accessed 2026-11-16.

[57]Recursion Pharmaceuticals, Inc., Form 10-K for 2025, filed 2026-02-25, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1601830/000160183026000039/rxrx-20251231.htm, accessed 2026-11-16.

[58]Recursion Pharmaceuticals, Inc., Form 10-K for 2022, filed 2023-02-27, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183023000010/rxrx-20221231.htm, accessed 2026-11-16.

[59]Recursion Pharmaceuticals, Inc., Form 10-K for 2025, filed 2026-02-25, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1601830/000160183026000039/rxrx-20251231.htm, accessed 2026-11-16.

[60]Nurix Therapeutics, Inc., Form 10-K for the fiscal year ended 2020-11-30, filed 2021-02-16, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1549595/000156459021006071/nrix-10k_20201130.htm, accessed 2026-11-16.

[61]Nurix Therapeutics, Inc., Form 10-Q for the quarter ended 2026-08-31, filed 2026-10-13, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1549595/000154959526000049/nrix-20260831.htm, accessed 2026-11-17.

[62]ClinicalTrials.gov, NCT05080842 and NCT05489679 (AC682), API records, status "TERMINATED", why stopped: "Voluntarily terminate the study since the sponsor's development strategy was adjusted." https://clinicaltrials.gov/study/NCT05080842, https://clinicaltrials.gov/study/NCT05489679, accessed 2026-11-17.

[63]ClinicalTrials.gov, NCT05241613 and NCT05673109 (AC176), API records, status "TERMINATED", why stopped: "Subject benefit-risk ratio changes, sponsor decides to voluntarily terminate study". https://clinicaltrials.gov/study/NCT05241613, https://clinicaltrials.gov/study/NCT05673109, accessed 2026-11-17.

[64]Denali Therapeutics Inc., Form 10-K for 2023, filed 2024-02-28, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1714899/000171489924000086/dnli-20231231.htm, accessed 2026-11-17.

[65]AbCellera Biologics Inc., Amendment No. 1 to Form S-1, dated 2020-11-24, EDGAR filing date 2020-11-25, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1703057/000119312520302988/d29983ds1a.htm, accessed 2026-11-17.

Candidate	Company	AI claim	Highest phase	Reason given
Bamlanivimab	AbCellera, with Eli Lilly	Platform only[65]	Phase 3	Authorization revoked[66][67]
Bebtelovimab	AbCellera, with Eli Lilly	Platform only	Phase 2/3	Authorization revoked[68]
ISM3312	Insilico Medicine	Explicit[69]	Phase 1	None stated[70]

Of the other 19, 17 are active, 1 was replaced by a successor (EVX-02) and 1 is unknown (EXS4318, no current evidence). Counting the replaced and unknown cases as stopped gives 15 of 32 (46.9%; 95% interval 30.9–63.6%).

ISM3312 is absent from the pipeline chart in Insilico's 2025 annual report and its 2025 prospectus, with no partner or successor named, so the written rule counts it discontinued[71]. Insilico's undated web page still shows "Phase I Completed"[72]; reading it as unknown gives 12 of 32 (37.5%). XL309′s registry record gives a start of 2024-04-03, after the cut-off[73]; without it, 13 of 31 (41.9%). Without both, 12 of 30 (40.0%).

BEN-2293 missed its "Secondary efficacy endpoints"[74]. Recursion said REC-3964, REC-994 and REC-2282 "were discontinued and/or partnering opportunities are being pursued"[75].

In total, three stops followed trial results, six portfolio decisions and two lost authorizations; two had no stated reason. Explicit candidates: 4 of 15 stopped; platform only: 9 of 17.

Other estimates. A 2024 analysis reports Phase I success of 80–90% for AI-discovered molecules, and about

[66]U.S. Food and Drug Administration, "Coronavirus (COVID-19) Update: FDA Revokes Emergency Use Authorization for Monoclonal Antibody Bamlanivimab," 2021-04-16. https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-revokes-emergency-use-authorization-monoclonal-antibody-bamlanivimab, accessed 2026-11-17.

[67]U.S. Food and Drug Administration, "Emergency Use Authorization — Archived Information" (entries for bamlanivimab and etesevimab, and for bebtelovimab). https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization-archived-information, accessed 2026-11-17.

[68]U.S. Food and Drug Administration, "Emergency Use Authorization — Archived Information" (entries for bamlanivimab and etesevimab, and for bebtelovimab). https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization-archived-information, accessed 2026-11-17.

[69]Insilico Medicine, "Insilico Medicine sends first generative AI-designed drug for COVID-19 and variants to clinic," 2023-02-23, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/980646, accessed 2026-11-17.

[70]Insilico Medicine Cayman TopCo, Annual Report 2025, HKEXnews, 2026-04-28, pipeline chart (no ISM3312 or 3CL entry), https://www1.hkexnews.hk/listedco/listconews/sehk/2026/0428/2026042803625.pdf; and Global Offering prospectus, 2025-12-18 (company claim), on ISM3091: "We received IND approval from the FDA in April 2023, and we initiated a Phase Ia clinical trial in the U.S. in August 2023", https://ir.insilico.com/media/rgwjwpqu/global-offering-en.pdf, accessed 2026-11-17.

[71]Insilico Medicine Cayman TopCo, Annual Report 2025, HKEXnews, 2026-04-28, pipeline chart (no ISM3312 or 3CL entry), https://www1.hkexnews.hk/listedco/listconews/sehk/2026/0428/2026042803625.pdf; and Global Offering prospectus, 2025-12-18 (company claim), on ISM3091: "We received IND approval from the FDA in April 2023, and we initiated a Phase Ia clinical trial in the U.S. in August 2023", https://ir.insilico.com/media/rgwjwpqu/global-offering-en.pdf, accessed 2026-11-17.

[72]Insilico Medicine, 3CLpro pipeline page, undated (company claim): "We received the IND approval in February 2023 and initiated a Phase I clinical trial in China in March 2023"; "Project Status – Phase I Completed". https://insilico.com/pipeline_target_3clpro, accessed 2026-11-17.

[73]ClinicalTrials.gov, NCT05932862 (XL309, sponsor Exelixis, Phase 1, actual start 2024-04-03, active, not recruiting). https://clinicaltrials.gov/study/NCT05932862, accessed 2026-11-17.

[74]BenevolentAI, "BenevolentAI announces top-line Phase IIa results for its topical pan-Trk inhibitor BEN-2293 (1%) in mild-to-moderate atopic dermatitis," 2023-04-05 (company release filed under the EU Market Abuse Regulation; copy hosted by FinancialReports, a third-party filings archive, because the official Euronext page returned no content to scripted access). https://cdn.financialreports.eu/financialreports/media/filings/9192/2023/ISS/9192_iss_2023-04-05_9e70dda6-693a-4dfa-83d9-a4b8a4b48421.pdf, accessed 2026-11-16.

[75]Recursion Pharmaceuticals, Inc., Form 10-K for 2025, filed 2026-02-25, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1601830/000160183026000039/rxrx-20251231.htm, accessed 2026-11-16.

40% in Phase II on a limited sample[76]. We read only its abstract. Industry-wide in 2011–2020, 52.0% of candidates in Phase I moved on to Phase II[77]. In our main cohort, 12 of the 20 candidates whose Phase 1 outcome is settled reached Phase 2 (60.0%; 95% interval 38.7–78.1%). Industry rates matched by disease area predict 10.34 (one-sided p = 0.303), so the gap could be chance. Without Recursion's three, all of which reached Phase 2, the figure is 9 of 17 (52.9%; p = 0.568). Ten of its 13 stops were portfolio decisions, lost authorizations or unexplained; they say nothing about whether the AI step worked.

All 32 main-cohort candidates

Outcomes as of 2026-11-17. First trial is the earliest start date found; "or earlier" marks a company document that shows the trial under way by then, and "before" marks earlier trials whose start date we did not find (table, code).

Candidate	Company	AI claim	Highest phase	Outcome	First trial
EXS21546	Exscientia (now Recursion)	Explicit	Phase 1/2	Discontinued	2020-12-08
DSP-1181	Sumitomo Pharma (designed with Exscientia)	Explicit	Phase 1	Discontinued	2020-01 or earlier
DSP-0038	Sumitomo Pharma (designed with Exscientia)	Explicit	Phase 1	Active	2021 or earlier
DSP-2342	Sumitomo Pharma (designed with Exscientia)	Explicit	Phase 1	Active	2023 or earlier
EXS4318	Bristol Myers Squibb (designed by Exscientia)	Platform only	Phase 1	Unknown	2023 or earlier
GTAEXS617 (REC-617)	Exscientia / GT Apeiron (now Recursion)	Platform only	Phase 1/2	Active	2023-07-06
REC-3964	Recursion	Platform only	Phase 2	Discontinued	2023 or earlier
SGR-1505	Schrödinger	Explicit	Phase 1	Active	2023-04-10
MRT-2359	Monte Rosa	Platform only	Phase 2	Active	2022-10-12

[76] Jayatunga MKP et al., "How successful are AI-discovered drugs in clinical trials? A first analysis and emerging lessons," *Drug Discovery Today*, 2024, doi:10.1016/j.drudis.2024.104009. Abstract read via the Europe PMC API; full text not open. https://www.ebi.ac.uk/europepmc/webservices/rest/search?query=EXT_ID:38692505%20AND%20SRC:MED&format=json&resultType=core, accessed 2026-11-16.

[77] BIO, Informa Pharma Intelligence and QLS, "Clinical Development Success Rates and Contributing Factors 2011–2020," February 2021. https://go.bio.org/rs/490-EHZ-999/images/ClinicalDevelopmentSuccessRates2011_2020.pdf, accessed 2026-11-16.

Candidate	Company	AI claim	Highest phase	Outcome	First trial
NX-2127 (zelebrudomide)	Nurix	Platform only	Phase 1	Discontinued	2021-05-05
NX-1607	Nurix	Platform only	Phase 1	Active	2021-09-29
NX-5948 (bexobrutideg)	Nurix	Platform only	Phase 3	Active	2022-04-13
EVX-01	Evaxion	Explicit	Phase 2	Active	2019-01-28
EVX-02	Evaxion	Explicit	Phase 1/2	Superseded	2020-07-13
ISM001-055 (rentosertib)	Insilico Medicine	Explicit	Phase 3	Active	2021-12
BEN-2293	BenevolentAI	Platform only	Phase 1/2	Discontinued	2020-10-14
MDR-001	MindRank AI	Explicit	Phase 2	Active	2023-06-09
AC0682	Accutar Biotechnology	Explicit	Phase 1	Discontinued	2021-11-12
AC176	Accutar Biotechnology	Platform only	Phase 1	Discontinued	2022-03-16
AC699	Accutar Biotechnology	Platform only	Phase 1	Active	2022-12-29
AC676	Accutar Biotechnology	Platform only	Phase 1	Active	2023-06-20
AU-007 (imneskibart)	Aulos Bioscience (designed by Biolojic Design)	Explicit	Phase 1/2	Active	2022-04-04
bamlanivimab (LY-CoV555)	AbCellera (developed by Eli Lilly)	Platform only	Phase 3	Discontinued	2020-05-28
bebtelovimab (LY-CoV1404)	AbCellera (developed by Eli Lilly)	Platform only	Phase 2/3	Discontinued	2020-06-17
TAK-920/ DNL919	AbCellera (developed by Denali Therapeutics with Takeda)	Platform only	Phase 1	Discontinued	2022-07-14
PHI-101 (lasmotinib)	Pharos iBio	Explicit	Phase 1	Active	2020-06-08
REC-994	Recursion	Platform only	Phase 2	Discontinued	before 2022-03-17

Candidate	Company	AI claim	Highest phase	Outcome	First trial
REC-2282	Recursion	Platform only	Phase 2/3	Discontinued	2022-06-20
REC-4881	Recursion	Platform only	Phase 2	Active	2022 or earlier
ISM5411	Insilico Medicine	Explicit	Phase 2	Active	2023-11-08
ISM3312	Insilico Medicine	Explicit	Phase 1	Discontinued	2023-05 or earlier
ISM3091 (XL309)	Insilico Medicine (licensed to Exelixis)	Explicit	Phase 1	Active	2023 or earlier

Borderline, outside the main cohort (table). Adagene: ADG126 (muzastotug), active; ADG106, discontinued; ADG116, active; ADG206, active. Drug Farm: DF-003 and DF-006, both active. Adagene "decided not to continue the development of ADG106". ADG206 "has completed phase 1 development"; only an investigator study "has been deprioritized and terminated"[78]. Counting all six gives 14 of 38 (36.8%) discontinued.

Method

- **Current list (searched 2026-11-15 to 2026-11-16).** SEC EDGAR full-text search of 10-K, 20-F, S-1 and F-1 filings dated 2024-01-01 to 2026-11-15, using fixed AI and drug-discovery phrases, limited to pharmaceutical and biotechnology filers. We added up to 15 private and non-US companies named in those filings. Code and extracts: current-list. It was not recounted under the reworded exclusion; Recursion's REC-4881, a Phase 2 candidate, would now qualify.
- **Dated cohort (2026-11-16, revised 2026-11-17).** Filings dated 2020-01-01 to 2024-04-30 from the SEC EDGAR submissions interface, and company documents dated 2019–2023. Outcomes from later filings, FDA records, pipelines and registries. Code and tables: cohort and update-2026-11.
- **Rules applied as written (2026-11-17).** A script applies the tier rule and the entry rule to every candidate (c023_recompute.py). ISM5411, ISM3312 and ISM3091 were added on 2026-11-17. The rules are now fixed.
- **Trial phases.** ClinicalTrials.gov API version 2, matching candidate code names and generic names in each trial's intervention list. Highest phase counts only trials that have started; in the cohort, only trials run by the company or its development partner. A search of Phase 3 trials with any of 52 AI drug-discovery companies as lead sponsor or collaborator found no other qualifying molecule (data).
- **Phase 1 to Phase 2.** Advanced: a company or partner trial reached Phase 2. Failed: discontinued at Phase 1 or Phase 1/2. Expected counts use industry rates for oncology, infectious disease or all areas[79].
- **Approvals.** openFDA Drugs@FDA bulk file (updated 2026-11-16): every original approval searched for 109 molecule names and code names from all tiers (c022_fda_names.py); openFDA has no record under ISM3312, ISM3091, XL309 or ISM8207 (c023_fda_check.py, output).
- **Counts and ranges.** 95% Wilson score intervals, computed by c023_recompute.py (output); Phase 3 tier figures by note_update.py; first-version figures by headline.py. Full appendix: https://juncturaresearch.com/data/ai-drug-candidates-2026-11/.

[78] Adagene Inc., Form 20-F for 2025, filed 2026-04-01, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1818838/000110465926038612/adag-20251231x20f.htm, accessed 2026-11-17.

[79] BIO, Informa Pharma Intelligence and QLS, "Clinical Development Success Rates and Contributing Factors 2011–2020," February 2021. https://go.bio.org/rs/490-EHZ-999/images/ClinicalDevelopmentSuccessRates2011_2020.pdf, accessed 2026-11-16.

Limitations

- **Rules set after the data.** The evidence ranking, and our readings of the tier rule and of the new-use exclusion, were settled after the outcomes were seen. The grid in the Finding shows their effect: 20.7% to 40.6%. Rule questions from our adversarial review (SGR-2921, Lantern Pharma, Valo's OPL-0401, BPGbio, Relay and Structure candidates, Phase 1/2 counting, after-data rules that move the rate one way) are left for the next Report Update under the rule freeze.
- **Additions after the outcomes were known.** Sixteen of the 32 candidates, and all eight stops beyond the original 16, were added after their outcomes were known.
- **Company claims.** Except for rentosertib, the AI claims come from companies describing their own work. Seventeen of the 32 cohort candidates, and most of the current list, rest on platform-only claims, which do not show that AI shaped a given molecule. Nurix's 2020 filing names machine learning as one tool for sorting screening hits[80]; a stricter reader could call its three candidates borderline.
- **Small and uneven.** Follow-up since first trial runs from about 3 to 8 years (data), and candidates that look active may yet stop.
- **Coverage.** The first search missed candidates; others may remain. Companies whose AI programs failed and that went quiet before 2024 could not enter. Large drugmakers' own AI programs are covered only where a partner names the candidate. China's and Australia's trial registries did not return content to scripted requests. One person assigned every label.
- **Near-term events.** We did not check the design history of large drugmakers' molecules close to approval, such as Takeda's zasocitinib, with an FDA action date in the first quarter of 2027[81].
- **These are early-generation AI tools.** All 32 cohort candidates were in trials by the end of 2023, and at least 22 by the end of 2022 (data). The cohort reflects AI tools in use up to about 2021, by our estimate. This Note cannot say whether later tools will do better, or whether AI raises success rates at all.

Changelog

2026-11-17 (Report Update). Changes from the version of 2026-11-16. The headline stop rate moved from 25.0% (4 of 16; 95% interval 10–50%) to 40.6% (13 of 32; 25.5–57.7%) in seven steps. The move comes entirely from rules set after the data: without the precedence rule (set after the data), the main cohort of 32 gives 25.0% (8 of 32), the same rate as first published; the grid in the Finding shows every reading, 20.7% to 40.6%. Every rule below was applied by script (code, data).

- **NX-2127 discontinued: 4 of 16 → 5 of 16 (31.3%).** Nurix decided in August 2026 to discontinue it[82]; the registry still shows its trial recruiting[83]. The company statement outranks the registry under the evidence ranking below.
- **Cohort repair, after the outcomes were known.** Coverage checks found 16 candidates at seven companies outside the first search (MindRank, Accutar, Aulos Bioscience with Biolojic Design, Adagene, AbCellera, Pharos iBio, Drug Farm). The entry rule was unchanged. With them the cohort had 32 candidates and 11 stops (34.4%). Counting Phase 3 only in trials run by the company or its partner was decided after the data were seen.

[80] Nurix Therapeutics, Inc., Form 10-K for the fiscal year ended 2020-11-30, filed 2021-02-16, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1549595/000156459021006071/nrix-10k_20201130.htm, accessed 2026-11-16.

[81] Takeda, "U.S. FDA Accepts New Drug Application Under Priority Review for Takeda's Zasocitinib in Moderate-to-Severe Plaque Psoriasis…," 2026-09-14 (company release). https://www.takeda.com/newsroom/newsreleases/2026/fda-priority-review-zasocitinib-psoriasis/, accessed 2026-11-16.

[82] Nurix Therapeutics, Inc., Form 10-Q for the quarter ended 2026-08-31, filed 2026-10-13, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1549595/000154959526000049/nrix-20260831.htm, accessed 2026-11-17.

[83] ClinicalTrials.gov, NCT04830137 (NX-2127), API record, status "RECRUITING". https://clinicaltrials.gov/api/v2/studies/NCT04830137, accessed 2026-11-17.

- **Evidence ranking, set after the data were seen.** Regulator action, then a company or partner stop statement, then registry status, then a pipeline listing; "unknown" only when evidence of equal rank conflicts, or there is none. In the main cohort it decides five stops; without it, 8 of 32 (25.0%). An earlier reading of this Update, revised the same day, had counted Accutar's AC0682 and AC176 as unknown (9 of 32, 28.1%).
- **Tier rule applied as written: 11 of 32 → 10 of 26 (38.5%).** Adagene's four and Drug Farm's two candidates name AI as one ingredient of a broader platform, so they are borderline and leave the main cohort. An earlier reading of this Update, revised the same day, counted them as platform only (11 of 32, 34.4%). With them, the all-tiers reading is now 14 of 38 (36.8%), with ISM5411, ISM3312 and ISM3091.
- **Recursion's three re-tested: 10 of 26 → 12 of 29 (41.4%).** The new-use exclusion now covers only drugs already approved. REC-994, REC-2282 and REC-4881 had been excluded under it, but we found no approval for any of them[84]. All three meet the entry rule[85]. Recursion's 2025 annual report says REC-994 and REC-2282 "were discontinued and/or partnering opportunities are being pursued"[86]; for REC-4881 Recursion reports an "ongoing Phase 1b/2 TUPELO trial"[87].
- **ISM5411 added: 12 of 29 → 12 of 30 (40.0%).** A coverage check on 2026-11-17 found Insilico's 2023 release calling it "Designed by AI from scratch"[88]; it was in a Phase 1 trial from 2023-11-08[89] and is active. It enters as explicit; the grid rows rise from 26 to 27 and from 35 to 36.
- **Insilico's ISM3312 and ISM3091 added: 12 of 30 → 13 of 32 (40.6%).** Insilico's "fifth AI-driven drug program" count of December 2023 is, by our reading, of programs cleared for trials; the earlier text said three of them were not identified. ISM3312 enters as explicit[90], in a Phase 1 trial in China in 2023[91][92], and is discontinued under the written rule: it is absent from Insilico's 2025 annual report pipeline chart, with no partner or successor stated[93]; its undated web page shows "Phase I Completed"[94] (as unknown: 12 of 32, 37.5%). ISM3091, licensed to Exelixis as XL309, enters as explicit[95] and is active at Phase 1[96][97]; its registry

[84]U.S. Food and Drug Administration, openFDA Drugs@FDA bulk download, as downloaded (meta last_updated 2026-11-16). https://download.open.fda.gov/drug/drugsfda/drug-drugsfda-0001-of-0001.json.zip, accessed 2026-11-17.

[85]Recursion Pharmaceuticals, Inc., Form 10-K for 2022, filed 2023-02-27, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183023000010/rxrx-20221231.htm, accessed 2026-11-16.

[86]Recursion Pharmaceuticals, Inc., Form 10-K for 2025, filed 2026-02-25, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1601830/000160183026000039/rxrx-20251231.htm, accessed 2026-11-16.

[87]Recursion Pharmaceuticals, Inc., Form 10-Q for the quarter ended 2026-09-30, filed 2026-11-02, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1601830/000160183026000145/rxrx-20260930.htm, accessed 2026-11-17.

[88]Insilico Medicine, release of 2023-12-05 on ISM5411, verbatim copy on Kyodo News PR Wire (company release copy). https://kyodonewsprwire.jp/release/202312053801, accessed 2026-11-17.

[89]ClinicalTrials.gov, NCT06012578 (ISM5411, Phase 1, start 2023-11-08, completed); Phase 2 trial NCT07265570 started 2025-12-10, recruiting. https://clinicaltrials.gov/study/NCT06012578, https://clinicaltrials.gov/study/NCT07265570, accessed 2026-11-17.

[90]Insilico Medicine, "Insilico Medicine sends first generative AI-designed drug for COVID-19 and variants to clinic," 2023-02-23, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/980646, accessed 2026-11-17.

[91]Insilico Medicine, "Insilico Medicine receives IND approval for novel AI-designed USP1 inhibitor for cancer," 2023-05-25, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/990417, accessed 2026-11-17.

[92]Insilico Medicine, 3CLpro pipeline page, undated (company claim): "We received the IND approval in February 2023 and initiated a Phase I clinical trial in China in March 2023"; "Project Status – Phase I Completed". https://insilico.com/pipeline_target_3clpro, accessed 2026-11-17.

[93]Insilico Medicine Cayman TopCo, Annual Report 2025, HKEXnews, 2026-04-28, pipeline chart (no ISM3312 or 3CL entry), https://www1.hkexnews.hk/listedco/listconews/sehk/2026/0428/2026042803625.pdf; and Global Offering prospectus, 2025-12-18 (company claim), on ISM3091: "We received IND approval from the FDA in April 2023, and we initiated a Phase Ia clinical trial in the U.S. in August 2023", https://ir.insilico.com/media/rgwjwpqu/global-offering-en.pdf, accessed 2026-11-17.

[94]Insilico Medicine, 3CLpro pipeline page, undated (company claim): "We received the IND approval in February 2023 and initiated a Phase I clinical trial in China in March 2023"; "Project Status – Phase I Completed". https://insilico.com/pipeline_target_3clpro, accessed 2026-11-17.

[95]Insilico Medicine, "Insilico Medicine receives IND approval for novel AI-designed USP1 inhibitor for cancer," 2023-05-25, EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/990417, accessed 2026-11-17.

[96]Exelixis, Inc., Form 10-K for fiscal 2023, filed 2024-02-06, SEC EDGAR: "In the fourth quarter of 2023, we completed the transfer of stewardship of the ongoing phase 1 clinical trial evaluating XL309 from Insilico to us." https://www.sec.gov/Archives/edgar/data/939767/000093976724000028/exel-20231229.htm, accessed 2026-11-17.

start is 2024-04-03[98] (without it: 13 of 31, 41.9%). ISM8207 first dosed a patient in 2024 and does not enter[99]. The grid rows rise from 27 to 29 and from 36 to 38; the range is now 20.7% to 40.6% (code, data, evidence). openFDA has no record under any of the new names (data).

- **Other figures.** Broad stop rate 37.5% ⟶ 46.9% (15 of 32). Phase 3 or later in the cohort: 2 of 16 ⟶ 3 of 32 (9.4%; company or partner trials); 4 with bebtelovimab. "All stopped before Phase 3" removed. Stop reasons now cover 13 stops: trial results 3, portfolio 6, lost authorizations 2, not stated 2. TAK-920/DNL919 is portfolio, on Denali's statement[100]. A Phase 1 to Phase 2 comparison was added: 12 of 20 (60.0%), 10.34 expected. Three sensitivity lines computed on the earlier 32-candidate reading (before the tier rule) (a later cut-off, without REC-3964, Sumitomo's two as unknown) were removed; they have not been recomputed for the main cohort.
- **Phase 3 tiers:** 1 / 3 / 5 ⟶ 1 / 4 / 6, with bamlanivimab labeled as an emergency use authorization (revoked), not an approval. MindRank's Phase 3 claim added, labeled; the registry shows Phase 2.
- **Approvals:** full Drugs@FDA check added, by molecule name and code name (109 names, 25,670 original approvals). A first check by sponsor (6,767 approvals from 2019) missed a licensed-out molecule.
- **New information, not a correction: lirafugratinib approved.** The FDA approved Elevar's Lyrfigtu (lirafugratinib, RLY-4008, licensed from Relay) on 2026-09-23[101]. It is borderline, like zovegalisib: Relay names machine learning as one part of its Dynamo platform and does not say it designed RLY-4008[102]. So the published sentence, no FDA-approved new molecule that a company says was discovered or designed with AI, held under the Note's definition. It is the first FDA approval of a molecule from a borderline-tier company.
- **Text:** the 16-row cohort table became a 32-row table, with a list of the six borderline candidates and a table of the 13 stops; a table of rule readings was added; Finding, Method and Limitations updated.
- **Correction.** Two first-trial dates were too late: EVX-01, 2022-09-19 ⟶ 2019-01-28 (NCT03715985[103]; Evaxion's F-1: "commenced in January 2019"[104]); rentosertib, 2022-02-21 ⟶ 2021-12 (first volunteer dosed[105]). The follow-up sentence changed from "about 3 to 7 years" to "about 3 to 8 years". No count changed.

References

Each source is given as a numbered footnote.

Disclaimer

This is independent research produced with AI tools under human review. The authors are not financial professionals, and nothing here is investment advice or a recommendation to buy or sell any security. AI

[97] Exelixis, Inc., Form 10-Q, filed 2026-10-29, SEC EDGAR: "XL309 is currently being evaluated in a phase 1 clinical trial … and enrollment is ongoing." https://www.sec.gov/Archives/edgar/data/939767/000093976726000116/exel-20261002.htm, accessed 2026-11-17.

[98] ClinicalTrials.gov, NCT05932862 (XL309, sponsor Exelixis, Phase 1, actual start 2024-04-03, active, not recruiting). https://clinicaltrials.gov/study/NCT05932862, accessed 2026-11-17.

[99] Insilico Medicine, release of 2024-05-15 on the first patient dosed with ISM8207 ("In July 2023, ISM8207 received IND approval from CDE"), EurekAlert! copy (company claim). https://www.eurekalert.org/news-releases/1044804, accessed 2026-11-17.

[100] Denali Therapeutics Inc., Form 10-K for 2023, filed 2024-02-28, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1714899/000171489924000086/dnli-20231231.htm, accessed 2026-11-17.

[101] U.S. Food and Drug Administration, approval letter for NDA 220425, Lyrfigtu (lirafugratinib) capsules, Elevar Therapeutics, signed 2026-09-23. https://www.accessdata.fda.gov/drugsatfda_docs/appletter/2026/220425Orig1s000ltr.pdf, accessed 2026-11-17.

[102] Relay Therapeutics, Inc., Form 10-K for 2022, SEC EDGAR (company claim). https://www.sec.gov/Archives/edgar/data/1812364/000095017023004123/rlay-20221231.htm, accessed 2026-11-17.

[103] ClinicalTrials.gov, NCT03715985, "Personalized Neo-antigen Vaccine in Advanced Solid Tumors (NeoPepVac)." https://clinicaltrials.gov/study/NCT03715985, accessed 2026-11-17.

[104] Evaxion Biotech A/S, Form F-1, 2021-01-08, SEC EDGAR. https://www.sec.gov/Archives/edgar/data/1828253/000110465921002525/tm2031352-11_f1.htm, accessed 2026-11-17.

[105] Insilico Medicine, "Insilico Medicine initiates first-in-human study of ISM001-055," release datelined 2021-12-01, copy on the Hong Kong Science and Technology Parks site (company claim). https://www.hkstp.org/park-life/news-and-events/news/insilico-medicine-initiates-first-in-human-study-of-ism001-055-a-novel-drug-discovered-using-insi, accessed 2026-11-17.

analysis can be wrong; check every claim against its cited source. The authors may hold positions in companies discussed and do not trade in any company discussed before the related research is public.