PATENTPULSE AI · DAILY PATENT ALPHA

Sample Brief: Biotech

October 30, 2026 · 4 newly published USPTO applications, ranked by Signal Score

Real USPTO applications published in the last 60 days. Analysis is AI-generated opinion, not legal or investment advice.

AT A GLANCE

65 SIGNAL

#2 Split retron and guide RNA for efficient CRISPR…

Early-stage bet · European Molecular…

#3 Bi-specific agent depletes plasma cells making…

Early-stage bet · DEUTSCHES…

#4 Peptide method to treat fatty liver disease

Early-stage bet · Prince Biotech, LLC

TOP PICK

65 SIGNAL

#1 mRNA Creates Temporary T Cell Sites Outside Thymus

COMPOSITIONS AND METHODS FOR ACTIVATION AND MATURATION OF IMMUNE CELLS

Early-stage bet · Biotech · #1 of 37 screened in sample window

Applicant: Massachusetts Institute of Technology • **Inventor:** Feng Zhang +1 • **Entity:** Regular Undiscounted • **CPC:** A61K 31/711, C12N 15/88, A61K 9/5123 +13

Pub. No. US20260325565A1 • App. No. 19464793 • Filed 2026-01-30 • Published 2026-10-22

Market pull 25%	72
Acquisition interest 25%	68
Defensibility 20%	68
Innovation 15%	69
Timing 15%	

Broad claims on new liver-based T cell maturation approach in very large therapy market

WHY THIS ONE STANDS OUT

The problem it solves: Thymus decline impairs T cell production and immune function in aged mammals

Who would pay for it: Therapy developers seeking to restore T cell immunity in elderly patients

Likely buyers & why: Amgen: needs ectopic maturation options for T cell products; Gilead: may license to expand immune restoration pipeline

What makes it hard to copy: Broad functional language on any polynucleotides and any delivery vehicle makes design-around difficult

WHAT TO DO NEXT

1. VCs should review the full published application for all independent claims this week
2. IP counsel should compare claim 1 elements against existing T cell therapy portfolios

View USPTO publication (PDF) →

Source: USPTO Open Data Portal (published applications). Scores and analysis generated by Grok. Not legal or investment advice.

THE FULL RANKING

PatentPulse Signal Score (0–100): market pull 25% · acquisition interest 25% · defensibility 20% · innovation 15% · timing 15%, each scored by Grok from the application's abstract and independent claims. Honest absolute scale: a typical published application scores lower; 65+ is strong; 75+ is exceptional. Published applications are not granted patents; claims may change.



#2 Split retron and guide RNA for efficient CRISPR editing

ENHANCED MAMMALIAN CRISPR EDITING WITH SEPARATED RETRON DONOR AND NICKASES

Early-stage bet | Biotech | #2 of 37 screened in sample window

Applicant: European Molecular Biology Laboratory • **Inventor:** Dominik Lindenhofer +2 • **Entity:** Small • **CPC:** C12N 15/102, C12N 15/11, C12N2310/20 +4

Pub. No. US20260317756A1 • App. No. 19104501 • Filed 2025-02-18 • Published 2026-10-15



broad claim 1 on split retron-gRNA plus nickase in very large therapy market

WHY THIS ONE STANDS OUT

The problem it solves: Lower efficiency and toxicity from fused retron-gRNA and double-strand breaks in mammalian CRISPR editing

Who would pay for it: Companies developing therapeutic genome edits in mammalian cells

Likely buyers & why: CRISPR Therapeutics: needs efficient mammalian editing methods; Editas Medicine: works on nickase-based editing approaches

What makes it hard to copy: Claim 1 requires separate promoters for retron donor and guide RNA plus inverted repeats

WHAT TO DO NEXT

1. VC: search for any related patent filings by the same inventors
2. IP counsel: compare claim 1 elements against current mammalian editing products

Key risks: No office action yet so scope may narrow; Small applicant with no recorded products • **Alice/§101:** Low – nucleic acid compositions and systems for genome editing

View USPTO publication (PDF) →

Source: USPTO Open Data Portal (published applications). Scores and analysis generated by Grok. Not legal or investment advice.



#3 Bi-specific agent depletes plasma cells making harmful antibodies

BI-SPECIFIC AGENT FOR TARGETED PLASMA CELL-DEPLETION AND TREATMENT OF ANTI-VIRAL IMMUNODEFICIENCY

Early-stage bet | Biotech | #3 of 37 screened in sample window

Applicant: DEUTSCHES RHEUMA-FORSCHUNGSZENTRUM BERLIN • **Inventor:** Peter K. JANI +3 • **Entity:** Small • **CPC:** A61K 47/6813, C07K 16/2896, A61K 47/6849 +12

Pub. No. US20260335459A1 • App. No. 19114177 • Filed 2025-03-21 • Published 2026-10-29



Broad composition claim on new bi-specific plasma-cell agent plus assay; small applicant; no product data.

WHY THIS ONE STANDS OUT

The problem it solves: Autoantibodies bind interferon or its receptor and cause anti-viral immunodeficiency.

Who would pay for it: Firms treating patients with interferon-autoantibody immunodeficiency

Likely buyers & why: Roche: needs agents that deplete specific plasma cells; Novartis: develops targeted biologics for immune disease

What makes it hard to copy: Any competing agent must use an anchor that binds plasma cells plus the exact epitope-binding region.

WHAT TO DO NEXT

1. VC: request the full claim set and any related family members from the assignee
2. IP counsel: compare the epitope-binding elements in claim 17 against your client's current biologics pipeline

Key risks: Claims may narrow during examination; No clinical data or allowance yet • **Alice/§101:** Low – biologic composition and assay claims, not software

View USPTO publication (PDF) →



#4 Peptide method to treat fatty liver disease

METHODS OF TREATING NASH AND COMPOSITIONS THEREFORE

Early-stage bet | Biotech | #4 of 37 screened in sample window

Applicant: Prince Biotech, LLC • **Inventor:** Eytan R. Barnea • **Entity:** Small • **CPC:** A61P 1/16, A61K 38/1709, A61P 31/22 +2

Pub. No. US20260335401A1 • App. No. 19427677 • Filed 2025-12-19 • Published 2026-10-29



Broad method claims on PIF peptides for NAFLD/NASH in very large market from small applicant

WHY THIS ONE STANDS OUT

The problem it solves: Treating or preventing non-alcoholic fatty liver disease and steatohepatitis

Who would pay for it: Companies developing therapies for liver conditions

What makes it hard to copy: Broad method claims on any PIF peptide composition make design-around difficult

WHAT TO DO NEXT

1. Track this applicant's future filings on PIF peptides
2. Compare claimed PIF methods against any internal liver therapy programs

Key risks: Small applicant with no recorded products; Claims may narrow during prosecution • **Alice/§101:** Low – method of treatment with pharmaceutical compositions

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Source: USPTO Open Data Portal (published applications). Scores and analysis generated by Grok. Not legal or investment advice.

Pick to Act On: diligence plan

One-page plan for the top-ranked application in this brief.

What it claims	Polynucleotides encoding T cell differentiation proteins plus a delivery vehicle targeting tissues where progenitors mature
For investors	University filing shows early proof of ectopic T cell sites via mRNA in aged models without autoimmunity
For IP counsel	Broad independent composition claims on polynucleotides and delivery vehicle require monitoring for continuations and prior art on specific proteins
Alice / §101 risk	Low – composition claims for polynucleotides and delivery vehicles
Acquirers to watch	• Regeneron: blocked from certain ectopic T cell methods if claims issue broadly • Novartis: would need to avoid or license liver-targeted maturation compositions

DILIGENCE CHECKLIST (3–5 DAYS)

1. Does the full claim set include method claims beyond the shown composition?
2. What specific proteins beyond DLL-1, IL-7, FLT3L are claimed?
3. Are there related continuation filings already published?
4. What is the priority date, and how many independent claims are likely to survive Alice/Mayo analysis?
5. Are continuation or divisional applications pending?
6. What is the filing footprint beyond the USPTO (PCT, EP, CN, JP)?

KEY RISKS

- Claims may narrow during prosecution
- Preclinical mouse data only
- University applicant may seek licensing partners

PLAYBOOK BY ROLE

VCs / founders: identify the assignee; if it is a startup, explore licensing or an early investment conversation.

IP counsel: pull the published claims and file wrapper; assess freedom-to-operate and continuation strategy.

Strategic buyers: add to the watchlist and track prosecution; claims may change before grant.

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