

The State of Peptide Evidence

September 2026. Only 6 of 34 commonly sold peptides rest on replicated human trials. Seven findings, computed from the Peptide Evidence Index and frozen so they can be cited.

September 2026 edition

34 compounds

HTML + PDF

Education-only · nothing sold

WHAT THIS IS

An annual, citable snapshot of how much we actually know

This is the September 2026 edition of the Peptide Evidence Index, frozen as a dated report so it can be cited, compared against next year's edition, and quoted without the numbers shifting underneath the quote.

It covers the 34 peptides most commonly discussed and sold in the consumer peptide market, each graded by the strongest *human* clinical evidence that exists for it. Every figure on this page is computed directly from the Index's graded rows — nothing here is estimated or surveyed.

Edition note, October 5, 2026. After this edition was frozen, the review confirmed that SS-31 (elamipretide) received FDA accelerated approval as Forzinity for Barth syndrome on September 19, 2025 — a fact this edition missed. By the Index's own rule (approved for a specific indication, backed by randomized trials) it now sits in Tier A on the live Evidence Index, which makes the live count 7 of 34. The figures below are left as published so quotations of the September 2026 edition remain checkable; the September 2027 edition will carry the corrected count. Separately, the retatrutide and cagrilintide rows below were updated to reflect published Phase 3 results.

Scope, stated plainly. This report measures the *evidence base*, not safety, legality, or effectiveness for any individual. A high tier is not a recommendation. A low tier is not a dismissal. PeptideReport.ai is education-only and sells nothing.

HEADLINE FINDING

Only 6 of 34 peptides rest on replicated human trials

That is 18%. The other 82% sit in the Emerging or Preclinical tiers — some human data that has not been replicated at scale, or no human efficacy data at all.



Established 6 · 18% **Emerging** 17 · 50% **Preclinical** 11 · 32%

SEVEN FINDINGS

What the data says, in order of importance

1 Every Established compound got there through a regulator.

All 6 Tier A peptides are, or were, FDA-approved: Semaglutide, Tirzepatide, Tesamorelin, PT-141 (Bremelanotide), Oxytocin hold current approvals; Sermorelin was approved and later discontinued. Not one compound reached the top tier on the strength of independent research alone. In this market, “proven” and “approved” are the same list.

2 11 of 34 (32%) have no meaningful human efficacy data.

The Preclinical tier is entirely animal, cell, or mechanistic work: BPC-157, TB-500 (Thymosin β 4), MOTS-c, Humanin, Dihexa, 5-Amino-1MQ, KPV, LL-37, DSIP, Epithalon, Pinealon. Several of these are among the most talked-about peptides in consumer communities — an observation, not a measured statistic, but one anyone who has read a peptide forum will recognize.

3 13 compounds carry “Research only” status — no approved use anywhere in the world.

That status applies to Ipamorelin, CJC-1295, BPC-157, TB-500 (Thymosin β 4), MOTS-c, Humanin, Dihexa, 5-Amino-1MQ, KPV, LL-37, DSIP, Epithalon, Pinealon: 38% of the tracked market circulating as “research material” while being used as if it were medicine. A 14th, Melanotan II, is likewise unapproved and is counted separately in finding 7 because its record is dominated by safety warnings.

4 4 compounds are approved somewhere — and still not replicated at scale.

Cerebrolysin, Thymosin α -1, Semax, Selank carry approvals outside the U.S. FDA process, largely in Russia or via single-country registrations. Approval abroad turned out to be a weak predictor of evidence strength, which is exactly why this Index reports regulatory status and evidence tier as separate columns.

5 3 compounds ran real human trials — and the trials said no, or maybe.

MK-677 (Ibutamoren), SS-31 (Elamipretide), AOD-9604 all have genuine human trial data with failed or mixed primary endpoints. They remain widely sold. A trial is not an endorsement; sometimes it is the strongest evidence *against* the marketing.

6 4 investigational compounds have later-stage randomized data than several approved-abroad ones.

Retatrutide, Cagrilintide, ARA-290 (Cibinetide) are unapproved but carry Phase 2 or later randomized data; SS-31 (Elamipretide) holds a 2025 accelerated approval for the ultra-rare Barth syndrome while its larger mitochondrial-myopathy trials missed their primary endpoints. Evidence and regulatory status move on different clocks — and the Index tracks both so a reader can see where they diverge.

7 1 compound's best-documented human evidence is its harm.

Melanotan II carries formal safety warnings; its human record is dominated by adverse-event reports rather than efficacy trials. It is included here because a scorecard that only reports upside is not a scorecard.

APPENDIX · THE DATASET

All 34 compounds, as graded on the review date

Frozen for this edition. The live, searchable version — with a clinician note per row — is the Evidence Index.

COMPOUND	TIER	HIGHEST HUMAN EVIDENCE	REGULATORY STATUS
Semaglutide	A · Established	Phase 3 RCTs (STEP, SUSTAIN)	FDA-approved (Ozempic, Wegovy, Rybelsus)
Tirzepatide	A · Established	Phase 3 RCTs (SURMOUNT, SURPASS)	FDA-approved (Mounjaro, Zepbound)
Tesamorelin	A · Established	Phase 3 RCTs	FDA-approved 2010 (Egrifta)
PT-141 (Bremelanotide)	A · Established	Phase 3 RCTs	FDA-approved 2019 (Vyleesi)
Oxytocin	A · Established	Extensive human RCTs	FDA-approved (Pitocin)
Sermorelin	A · Established	Human trials	Formerly FDA-approved (Geref); now compounded
Retatrutide	B · Emerging	Four Phase 3 RCTs reported (TRIUMPH-1 to -4, 2025–2026)	Investigational — not FDA-approved; not yet submitted
Cagrilintide	B · Emerging	Phase 3 RCT (REDEFINE 1) as CagriSema	Investigational — FDA submission filed Dec 2025, decision pending

COMPOUND	TIER	HIGHEST HUMAN EVIDENCE	REGULATORY STATUS
MK-677 (Ibutamoren)	B · Emerging	Multiple human RCTs	Investigational — never approved
SS-31 (Elamipretide)	B · Emerging	Phase 2–3 trials; FDA accelerated approval (Barth syndrome, 2025)	FDA-approved (accelerated) for Barth syndrome only
Cerebrolysin	B · Emerging	Numerous human RCTs	Approved in some countries; not FDA-reviewed
Thymosin α-1	B · Emerging	Human trials	Approved abroad (Zadaxin); not FDA
Semax	B · Emerging	Human studies (mostly Russian)	Approved in Russia; research elsewhere
Selank	B · Emerging	Human studies (mostly Russian)	Approved in Russia; research elsewhere
Kisspeptin	B · Emerging	Human research trials	Investigational
NAD+	B · Emerging	Human trials of precursors (NR, NMN)	Supplement / research
Ipamorelin	B · Emerging	Small human GH studies	Research only
CJC-1295	B · Emerging	Small human PK studies	Research only
GHK-Cu	B · Emerging	Human topical / cosmetic studies	Cosmetic ingredient; injectable is research only
AOD-9604	B · Emerging	Human RCTs (obesity)	Investigational — failed endpoints
ARA-290 (Cibinetide)	B · Emerging	Phase 2 RCTs	Investigational
VIP	B · Emerging	Small human / research studies	Investigational (e.g. aviptadil studied)
Melanotan II	B · Emerging	Limited human data	Not approved; safety warnings issued

COMPOUND	TIER	HIGHEST HUMAN EVIDENCE	REGULATORY STATUS
BPC-157	C · Preclinical	Animal studies only	Research only
TB-500 (Thymosin β 4)	C · Preclinical	Animal studies	Research only
MOTS-c	C · Preclinical	Animal / mechanistic	Research only
Humanin	C · Preclinical	Animal / cell	Research only
Dihexa	C · Preclinical	Animal studies	Research only
5-Amino-1MQ	C · Preclinical	Animal / cell	Research only
KPV	C · Preclinical	Animal / cell	Research only
LL-37	C · Preclinical	Research-stage	Research only
DSIP	C · Preclinical	Sparse, decades-old human / animal	Research only
Epithalon	C · Preclinical	Small, older studies	Research only
Pinealon	C · Preclinical	Small, older studies	Research only

METHOD

How the grades were assigned

Each compound was run through the same fixed question set: *Is there human RCT evidence? Is it replicated? Is it approved anywhere, and for what? What does the strongest study show — and what did it fail to show?* The answers place it in a tier before any narrative is written. Enthusiasm doesn't bump a compound up; unfamiliarity doesn't push one down.

Tier A — Established: replicated human randomized controlled trials. **Tier B — Emerging:** some human clinical data — single or small trials, mixed results, or non-Western literature — not replicated at scale. **Tier C — Preclinical:** no meaningful human efficacy trials.

Regulatory status is recorded separately and never used to set the tier. Where a landmark program or approval defines the evidence (STEP, SURMOUNT, Egrifta, Vyleesi), it is named so the grade can be checked against the primary source. Specific citations were not invented for compounds where the evidence is diffuse; the evidence *type* is stated instead.

Full framework: How Peptides Are Chosen.

CITE THIS EDITION

Take it with you

This edition is frozen. Quote its numbers with the edition name and they will still be checkable next year, after the live Index has moved on.

DelBoccio, S. (2026). *The State of Peptide Evidence: September 2026 Edition*. PeptideReport.ai.
<https://peptidereport.ai/research/state-of-peptide-evidence-2026/>

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Next edition: September 2027, or sooner if Phase 3 readouts for retatrutide or cagrilintide move a row. Journalists and researchers may reproduce the figures with attribution.

COMMON QUESTIONS

About this edition

Is this the same as the Evidence Index?



Where do the numbers come from?



Does “Established” mean a peptide is safe?



Why are so few in the top tier?



Can I quote this report?



SOURCES

Primary references for this page. Links open PubMed, ClinicalTrials.gov, FDA or regulator records.

1. Drugs@FDA: OZEMPIC (semaglutide) NDA 209637 — FDA Drugs@FDA, 2017
2. Drugs@FDA: MOUNJARO (tirzepatide) NDA 215866 — FDA Drugs@FDA, 2022
3. Drugs@FDA: EGRIFTA (tesamorelin) BLA 022505 — FDA Drugs@FDA, 2010
4. Drugs@FDA: VYLEESI (bremelanotide) NDA 210557 — FDA Drugs@FDA, 2019

ABOUT THE AUTHOR



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Dr. DelBoccio is a clinician with thirty years of practice and a focus on peptide pharmacology. He built the Peptide Evidence Index — and this annual edition of it — to hold every compound to the same evidentiary standard rather than the one the market wishes applied. PeptideReport.ai is education-only and sells nothing.

FULL DISCLAIMER

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